# Antiquity

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## Editorial Notes

MANY new readers will form their first opinions (we hope favourable) of ANTIQUITY from the present number. While we are content that it should be so, we think it reasonable to point out certain things which can hardly be apparent from the contents of any single number. Some have already been hinted at in the widely distributed leaflet by means of which we increase our circulation. But there is no room there for more than the briefest and most blatant trumpetings. ANTIQUITY represents a point of view which is not otherwise articulate except in the somewhat technical articles published by learned societies—and not always there. It reports the progress of discovery and invention everywhere, and says in effect to its readers : ' These things are important and will interest you ; they are not merely the sport of specialists. What these people are doing is to unearth the basic facts of life in past ages ; in these pages you can get some idea of how they do it and how it should be done, even if you can't always master the technical processes involved. We archaeologists depend on your support and in return we try to keep you up-to-date about what is going on '.

How far do the contents of this number justify such claims ? Take Major Williams-Hunt's article on Siamese earthworks. Some may say they are not interested in Siam or its history, and the writer of these notes was one such. But he is interested in earthworks, and when he was shown an air-photo of one in Siam that looked just like Badbury Rings in Dorset, he began to change his opinion. Here was a group of people who had solved the problem of home defence in the same way as our own ancestors. The facts are completely new ; no such earthworks had ever been recorded or even suspected in Siam until these air-photos revealed them, and even now no one has been to examine any single one of them on the ground. The facts are also important because they relate to a basic human need, defence. And finally their revelation, by air-photography, is a good example of ' how they do it '. Even therefore if Siamese history leaves you cold, you may still find something of interest in this article.

What is the point of view which ANTIQUITY represents ? In terms of individuals, it represents the generation which between the wars built modern archaeology on the foundations laid by Haverfield and before him by Pitt-Rivers. In terms of culture—for archaeology and anthropology themselves are of course culture-traits—ANTIQUITY

looks at the world past and present in the sort of way that Tylor and Morgan would probably have looked at it, had they been alive today. This is not the place for a sermon on anthropology ; but we do want our readers, especially the new ones, to grasp the fact that this matter of points of view is of vital and fundamental importance, not only with regard to history and the past but in the things of everyday life. We can best illustrate ours by an example of the opposite.

A writer in the *Times Literary Supplement* (November 6, 1948), reviewing a book on New Zealand, selects as ' outstanding ' a chapter on literature and the arts there. The author (says the reviewer) regards the ' basic culture of New Zealand ' as ' still predominantly that which was brought over from Victorian England, and says that the greater sense of nationhood which developed during the depression among younger writers . . . has not changed markedly the attitude of the general public. He gives a warning against trying to force the growth of a national cultural consciousness '. The scene suggested here—of young writers in Victorian surroundings developing a ' sense of nationhood ' during the depression, and being disappointed because everyone ignored them—has a quaint charm of its own ; one can almost see the horsehair sofas and texts on the walls. But the arrogance of it ! To imagine that ' national cultural consciousness ' is created at all (much less ' forced ') by writers young or old ! We prefer to think that it is the dog that wags the tail. But this idea, that facts can be altered by words, that talking or writing at large can control or even change the culture of nations, this idea is still dominant in the world at large. It is implicit in such missionary work as consists only in preaching a gospel, though the history of all missions confutes it. (Missionaries often produce results by the example of their lives).

ANTIQUITY belongs to the school of Darwin, Tylor, Morgan and Pitt-Rivers, and regards art and literature as elements of culture to be studied as such, not as determinants thereof. We believe that this point of view can be clarified and made acceptable, and this not by preaching (and these notes must *ipso facto* be included) but by the advancement and diffusion of knowledge. We believe that all the facts of human history vindicate it. We also believe that some facts are more important than others and that we can recognize them. In archaeology—and in all other branches of science—we regard the invention of a new technique as (in outstanding examples) more important than many discoveries regarded as sensational. The discovery of a means of dating wood and other organic substances by the Carbon 14 method (as it is to be called) is regarded as far more important than that of the Hebrew Scrolls. That principle is recognized in modern affairs ; the invention of broadcasting by radio is obviously of more importance than, say, the foundation of a daily newspaper. We believe in complete liberty of expression for all views and detest all inquisitions, red or black.

We think it is partly because ANTIQUITY has always represented this point of view that it is not only alive—in two senses—today, but increasing its circulation. Some readers might be surprised if they knew how closely their reactions were watched. It is they who keep us going, and it is very good for us to be thus kept on our toes. It is good for us to have competitors. Our aim is to double our circulation without lowering our

standard. We might perhaps get a large circulation by abandoning all standards and becoming a mere picture paper for brainless people ; but there could be no satisfaction (to the editor or his partner) in conducting such a paper, and we most certainly do not for a moment envisage it. We are doing very well at present and want nothing but the means to do better—and that will come as our circulation rises. Meanwhile, as this is the beginning of a new year, may we be excused for calling attention to the paper slip enclosed in the copies of those who have not already paid ? Prompt payment is an enormous help ; and payment by Banker's Order, which can begin any time, is a great saving of bother to all concerned.

Publishers and authors must want to sell the books they produce, but they often themselves make this unnecessarily difficult. We receive many books—far more than we have room to review or even mention ; and some of the best are published by archaeological societies. But two of the latest received had no indication anywhere of their price, and one of them gave no clue to the society's whereabouts, not even the address of the editor or secretary. How on earth can those responsible expect the public to buy their books if this essential information is withheld ? We can hardly believe that such societies object to selling their special publications or *separata* (when these are made available for purchase) to non-members ; for, apart from the immediate returns, that must surely help to recruit new members. Commercial publishers in this country and America usually state the price, though sometimes not on the book itself (as they should) but on an enclosed slip, being wiser in this respect than the children of light. We have observed that coyness in printing the price in the books themselves increases with the price. (The besetting sin of the commercial publisher is to omit the date or conceal it in small print behind the title-page—which is its proper place.) The information which an interested reader may be expected to want is the address to which he or his bookseller should write (1) to obtain a copy (2) to become a member, and the cost of each. Even when this information is given, it is often buried in an elaborate list of the society's officers, and he is not helped in deciding whether he should write to the editor at his private address (when given, sometimes only in the list of members in another fascicule) or to the society's headquarters, or to its secretary or to the printer. By this failure to observe the elementary rules of business, learned societies impose unnecessary handicaps upon themselves.

Mr Collins writes:—It is kind of you to devote so much space to our Blewburton excavations. Your admirable summary, however, contains one slip to which attention should be called: in your last paragraph but one you attribute the burial in the ditch to Iron Age A. If this were so it would upset the otherwise established sequence of pre-earthwork A2 followed by post-earthwork AB. In fact, the pot found with the burial shows B influence in its profile and in its incipient bead-rim. The adze is of the type found on sites such as Hunsbury and Glastonbury, where B influence is very strong.

The Editor wishes to thank all those readers who have written to congratulate him on the honour conferred on him by the King. He hopes to be able to write and thank each person individually ; but as he left England for the Sudan almost immediately afterwards, many such letters could not be answered before his departure.

# Cave Men's Buildings

by V. Gordon Childe

THE popular epithet for our pleistocene forerunners is still 'cave men'. It gives the impression that they were as completely dependent on Nature's bounty for shelter as for food. And of course that impression was originally intended by archaeologists themselves. Most remains of middle and upper palaeolithic cultures were, and still are being, collected from caves. Other sites that yielded similar relics have been designated 'open stations', with the inevitable, if not deliberate, implication of the absence of any shelter. Yet from many caves there have long been known engravings or paintings that seem to represent tents or more substantial structures and that have been designated 'tectiforms' for this very reason. Not all prehistorians accept this obvious interpretation, and few of those who do have realized its significance. Perhaps they were waiting with proper scientific caution for monumental evidence.

Such evidence is now available in plenty. But as it is mostly published in Russian, and badly at that, it has not been at all widely appreciated. Yet the construction of dwellings twenty thousand or more years ago is so striking a fact in cultural history as to justify a summary of the rather inaccessible accounts that have appeared.

Physical remains of the simple tent-like structures inferred from the commoner tectiforms have been identified at Gagarino and Kostienki on the Don in the Ukraine and at Mal'ta and Buryet on the Angara in Siberia. At Gagarino (1) the 'hut foundation' was an irregular saucer-shaped excavation in the löss, nowhere more than .50 m. deep. and measuring some 5.50 by 4.50 m. across. A silo trench, dug by peasants, that had originally revealed the archaeological deposit, had cut right through its centre along the major axis thus presumably destroying the hearth and the entrance. Little evidence for the superstructure was left, but Zamyatnin noticed large slabs of stone and mammoth tusks lying near the margins of the depression. This dwelling was occupied by Gravettian mammoth-hunters as was a similar one subsequently discovered at Kostienki (2) below the large 'communal house' to be discussed later.

The dwelling at Mal'ta (3), a site celebrated for statuettes of mammoth ivory, was essentially similar. The oval depression in the original soil was bordered with stone slabs. The hearth, in the centre of the floor, was a shallow basin with a stone slab at the bottom and slabs of stone on edge at either side. The whole was full of charcoal and bone-ash. At Buryet (4) between 1936 and 1940 four analogous foundations were uncovered. All belong to the same 'period' (a phase of the Upper Palaeolithic which cannot as yet be defined more closely either archaeologically or geologically) which does not of course necessarily mean that all were occupied in the same year. A comparatively

[1] Zamyatnin, *La Station aurignacienne de Gagarino*, Moskva, 1934.

[2] Efimenko, *Pervobytnoe Obshchestvo*, Leningrad, 1938, p. 383, n. 1.

[3] *Paleolit S.S.S.R.* (*Izvestiya* Gaimk., 118), Leningrad, 1935, pp. 116–7.

[4] *Kratkie Soobshchenniya* . . . iimk, x, 1941, pp. 16–19.

full description of the foundations has been published together with a detailed plan of one, but no sections.

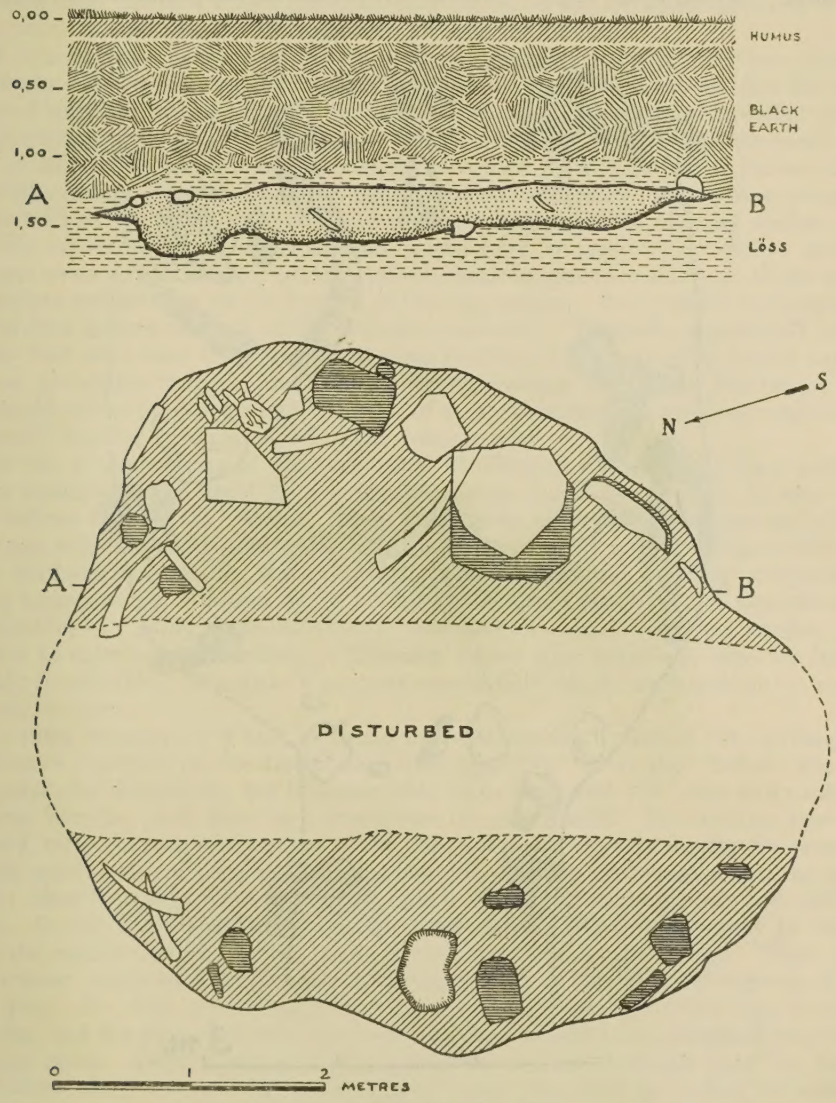


FIG. 1. PLAN AND SECTION OF HUT-FOUNDATION AT GAGARINO
*after* Zamyatnin

As elsewhere, the edge of the oval depression was delimited by stone slabs, measuring on an average 1.0 by 0.7 m. across, that presumably once stood on edge, and by large

bones such as rhinoceros skulls. Just within the margins thus defined lay phalange bones of mammoth, often under prostrate slabs but spaced at regular intervals round the depression. An extra pair, further from the centre than the rest, flanked what is supposed

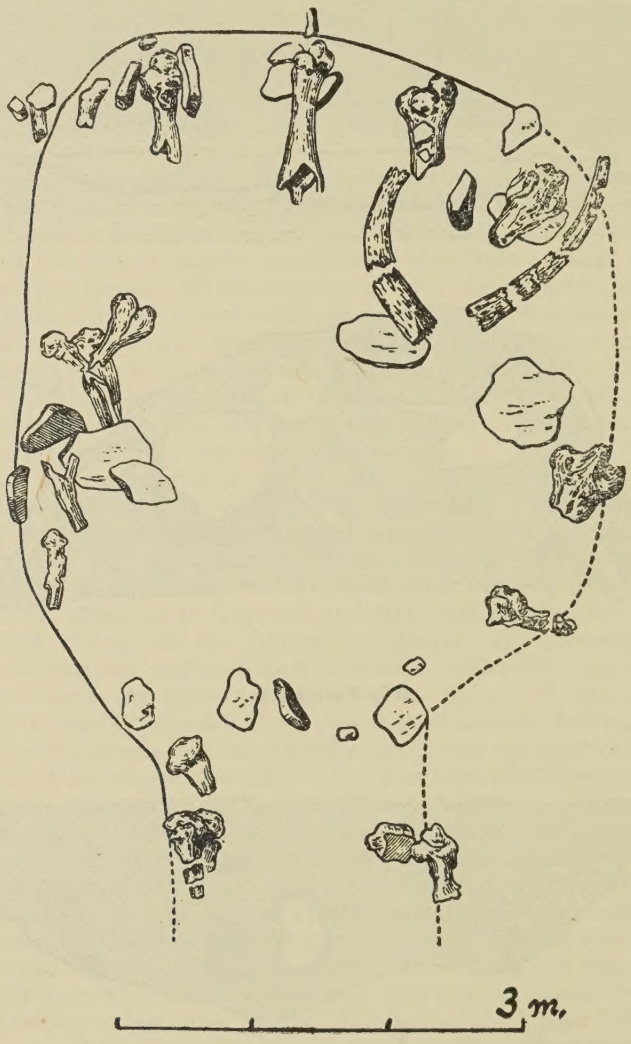


FIG. 2. PLAN OF HUT AT BURYET

to have been the entrance. Okladnikov supposes that these bones helped to support the roof but not as pillars so much as struts upon the tops of which would have been supported inward-slanting poles the lower ends of which would have rested on the ground where

the slabs stood along the margins of the depression. On the latter's floor were found numerous reindoor antlers, sometimes interlocked. These, the excavator suggests, were fallen from the roof where they had once formed a sort of lattice between the converging poles to serve as a frame supporting a covering of skins.

Of course traces of such small and probably temporary shelters are not altogether unknown in Western Europe (5). More novel is the Russians' claim to have discovered remains of large communal houses which would have served as permanent winter quarters for larger social groups. The first observations justifying this claim were made at the village of Kostienki (6) on a site previously identified by Polyakov and known already in the 18th century. When Efimenko began excavation here in 1923 he soon recognized that the bulk of the relics were concentrated in a hollow in the old löss surface which eventually proved to be an irregular oval, 35 m. long by some 15 m. wide. Along its major axis was a row of nine (or perhaps eleven) hearths spaced at intervals of two metres. All complete artifacts lay on the bottom of this depression. But around its margins and above its floor broken artifacts and bones were recovered. Efimenko ingeniously inferred that they had once been incorporated in earth that had been heaped up round and over a roof of perishable material that had originally covered the whole depression. The latter would accordingly represent the floor of a single communal dwelling wherein nine (or eleven) ' natural families ' lived under a single roof.

For the superstructure of this communal dwelling no evidence has been published save the mention of the usual large mammoth bones round the margins of the hollow and of various holes in its ' floor '. Some holes were admittedly small storage pits, but others may well have been sockets for posts. Unfortunately no plan whatsoever of the site has yet been published. Its interpretation as a communal dwelling comparable to the long houses of the Iroquois or the Dayaks is certainly plausible and attractive. But the difficulties of roofing a dwelling 15 or more metres wide on a treeless tundra, where wood was so scarce that according to Efimenko bones were habitually used for fuel, are obviously formidable. Efimenko's account accordingly needs confirmation by accurate plans and sections.

Yet some support for it may be found in the fuller description of the contemporary settlement of Pushkari on the Desna near Chernigov (7). Here the ' house ' was again an irregular oval depression, but this time only 12 m. long and 4 m. wide and containing only three hearths, once more in a row down the major axis. No sections have been published, but, it is stated, the edges of the depression were gently sloping for some 8 m. along the north-east side and on the opposite side between the western and the middle hearths ; elsewhere they were steep and actually vertical in the southeast and northwest corners. In the floor besides the hearths were some thirty holes, mostly in the area around the middle hearth, 10 to 12 cm. across and some 10 cm. deep. Their filling, red in colour, comprised flints, ashes and bones, and so Boriskovskiĭ regards them as storage pits. He does not mention the attractive hypothesis that some may have been post-holes, and the plan does not show whether they would have contained structurally significant posts. Four mammoth jaws, found in vertical positions near the margins of the hollow, are, however, supposed to have played some part in roofing the area. In any case the inhabitants of Pushkari would have formed a very small clan.

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[5] Lang-Mannersdorf (*Mannus*, XIII, 76) ; Fourneau du Diable (*Mem.* 10, 1932, Institut de Paléontologie humaine).

[6] *Trans. 2nd Internat. Conf. Assoc. for Study of Quaternary Period in Europe*, vol. V, Leningrad, 1935, pp. 93–4 (German) ; Efimenko, *Pervobytnoe Obshchestvo*, pp. 447–54.

[7] *Kratkie Soobshchenniya*, VII, 1940, pp. 81–6.

Foundations for two much longer and more capacious houses have been reported from a second site at Kostienki, Kostienki IV (8), but these belong to a later period than Kostienki I, Gagarino or Pushkari, comparable probably to the early Magdalenian of western Europe. Only an outline plan without sections and a preliminary description have been published. House A was represented by a hollow, 34 m. long and 5.5 m. wide, along the major axis of which were nine hearths in a row. Low ridges, rising above the general level of the hollow's bottom, seem to have divided the house into three compartments—I, II and III on the plan. In addition to the hearths, many deeper

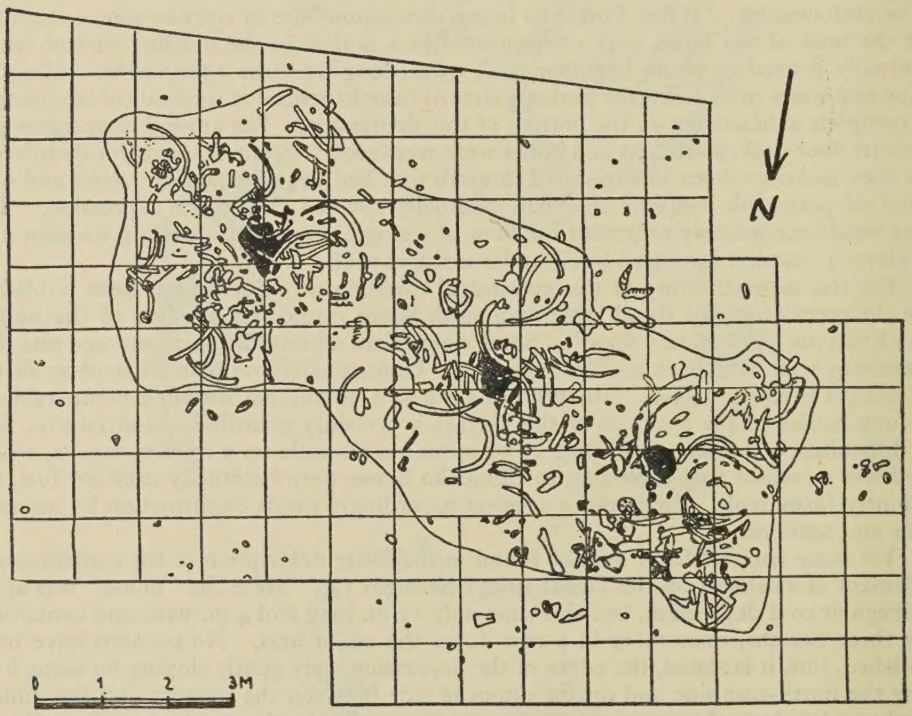


FIG. 3. PLAN OF GRAVETTIAN SETTLEMENT AT PUSHKARI
The irregular enclosing line marks the edge of the excavated habitation
*after* Boriskovskiĭ

hollows—20 to 35 cm. across and 30 to 40 cm. deep—had been dug in the floor; the lower part of their fillings was coloured bright red and consisted largely of hare bones. Rogachev regards them as storage pits; an explanation as post-holes is again tempting, attribution to burrowing animals not excluded.

House B lay 15 to 20 metres from the first and consists again of a long hollow (IV on plan), 21 m. long by 5.5 m. wide. Nine hearths—saucer-like depressions some 60 to 70 cm. in diameter and 8 to 12 cm. deep filled with ash—were strung out along the

[8] ibid, IV, 1940, 36–8.

major axis while smaller holes had been dug in the floor as in A. The long house is cut by two round hollows (V and VI) each about 6 m. in diameter and containing a single central hearth. While the faunal remains were still explicitly pleistocene, the flint and bone tools recovered from these round hollows differed from those in the long houses. They in fact must represent the foundations of two simple round huts like those of Gagarino and Kostienki I that had been dug into the older long house B. In rejecting this view Rogachev writes ' The partial covering by the deposit in VI of the deposit in IV might be the result of slip from VI which lies a little higher up the slop '. But ignoring

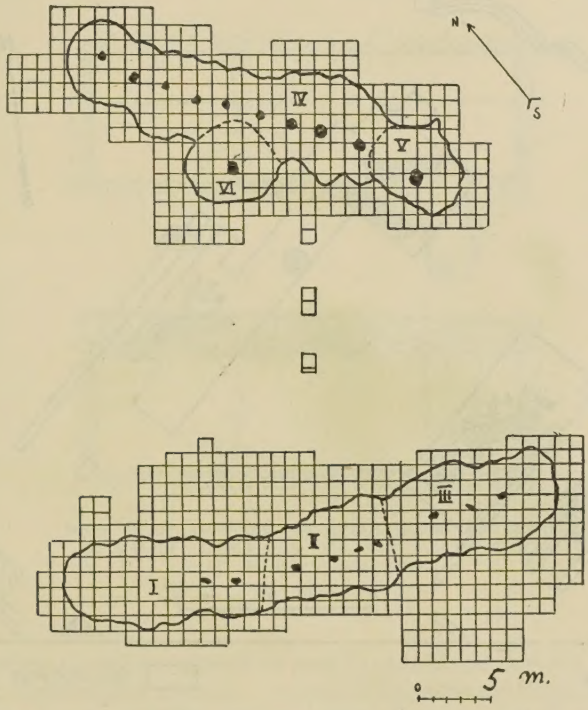


FIG. 4. PLAN OF THE LATE PALAEOLITHIC SETTLEMENT KOSTIENKI IV

The excavated areas are divided up into one-metre squares; the irregular lines mark the limits of the two excavated 'houses'; the broken lines, low ridges dividing the excavated area into 'rooms', numbered I to VI; the black spots mark hearths

*after* Rogachev

these later intrusions, Kostienki IV would show us a settlement of two clans comprising 18 single families.

An even more complex settlement dating from a rather later phase of the Old Stone Age has been described, again with very inadequate plans, by the late Prof. Gorodtsov (9)

[9] ' Sotsialno-ekonomicheskiĭ stroĭ drevnikh obitateleĭ timonovskoĭ paleoliticheskoĭ stoyanki ', *Sovietskaya Etnografia*, 1935 (3), pp. 1–7; cf., Hančar in *Quartär*, IV, 1942 (German).

at Timonovka also on the Desna. Between 1929 and 1934 he had uncovered six long houses, four large storage pits, three open-air hearths and two working places. The houses were rectangular excavations, 6 to 12 m. long, 3.5 m. wide and 2.5 or 3 m. deep. Traces of timber revetments to the vertical walls are reported, and a flat roof covered with earth and rubbish is assumed. Access was provided by sloping ramps about one metre wide. Hearths—again hollows 1.10 m. in diameter and .6 m. deep—were observed only in houses I and VI. Houses I and VI seem to be paired with the unheated

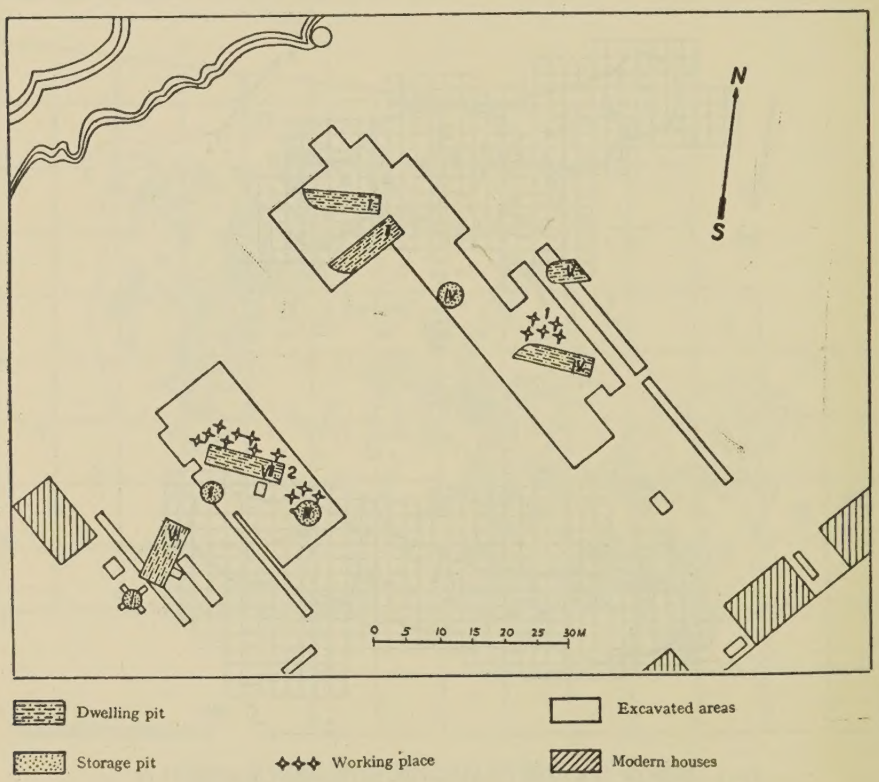


FIG. 5. PLAN OF THE EXCAVATIONS ON THE LATE PALAEOLITHIC SITE OF TIMONOVKA
*after* Gorodtsov

houses II and VII. (The incomplete house V may have formed a similar pair with IV). The working places of flint-knappers are conspicuously connected with the unheated houses IV and VII while storage pits seem to be connected with houses IV, VI and VII. Gorodtsov further remarked that needles and other tools proper to women were found only in the houses containing hearths while the larger storage pits were attached to these also. From these observations he drew highly illuminating albeit speculative sociological deductions which cannot be discussed here.

Soviet archaeologists may be justly proud of having demonstrated such an immense prolongation of the history of domestic architecture. But they have not yet presented adequately the content of this new volume of architectural prehistory. Its correct evaluation demands accounts of Kostienki, Pushkari and Timonovka as detailed and as well illustrated as the classic monographs on Glastonbury or Köln-Lindental. In 1938 Efimenko announced that a final report on Kostienki I was in preparation. The war intervened, but Efimenko survived it (rumours of his ' liquidation ' are false), so the work may still be expected. Let us hope it will be as complete and as lavishly produced as German accounts of neolithic villages.

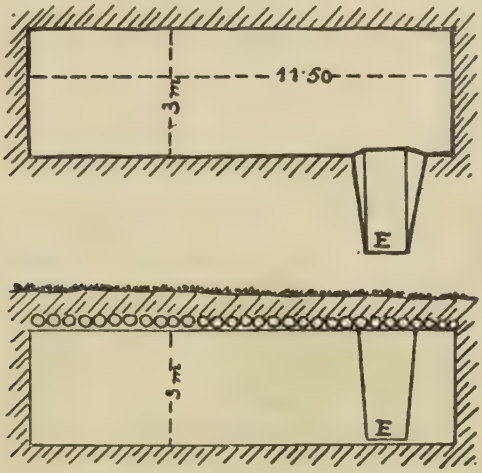


FIG. 6. PLAN (above) AND LONGITUDINAL SECTION (below) OF A HABITATION-PIT IN THE LATE PALAEOLITHIC SETTLEMENT OF TIMONOVKA
*after* Gorodtsov

In the meantime it may be relevant to note in conclusion that last year Rust reported a ' house ' of the Hamburgian culture. A ring of big stones is taken as marking the outlines of a tent which in turn stood in a larger, horse-shoe shaped enclosure, 9.5 m. by 10 m. at the open end of which, outside the ' tent ', was the hollowed hearth with a working place beside it. This presumably represents only a summer encampment, but again only a preliminary report (**10**) is available.

NOTE.—We feel that an apology is needed for publishing these atrocious plans in ANTIQUITY, which has always aimed at a high standard of cartography. But they are the only ones available of the only known ' cave men's buildings ', and neither we nor the author of the article had any alternative.—ED.

[10] *Hammaburg*, I, 1948, pp. 34–6.

# Archaeological Discoveries on the Blue Nile

by F. Addison

In a recent article in this journal (1) Mr O. G. S. Crawford referred to the people of the Sudan as a people without a history, and he drew attention to the possibilities of filling some of the lacunae in their history by the excavation of sites south of Khartoum especially along the White Nile. It is, of course, true, as the responsible authorities are well aware, that a good deal of exploration remains to be done in the Sudan and awaits only the necessary funds. It is probable, also, that many ancient village sites in the area between the Blue and White Niles now lie beneath the cotton fields of the Gezira Irrigation Scheme. It is therefore the more unfortunate that some archaeological discoveries which *have* been made have either been inadequately published or their publication has been inordinately delayed.

In this latter respect archaeology has been singularly unfortunate in the district round Sennar, on the Blue Nile, a region which appears to have been important throughout the history of the Sudan. It is doubtful if the Egyptians of the Old Kingdom penetrated as far south as this, though their descendants may have done so in New Kingdom times ; but the area was certainly a centre of civilization in the heyday of the Meroitic kingdom, about the beginning of the Christian era, and, nearer our own times, it was the headquarters of the powerful Fung kings of the 16th to 18th centuries.

The name Sennar has, within the last hundred years, been given to three different towns (see map, FIG 2). The first of these was the site of the Fung capital and this, now in ruins, was replaced in the early days of the present administration by a new town built a little to the south. This was then called Sennar and the ruined town Old Sennar. Still further upstream lay the hamlet of Makwar, close to the line of the projected dam, and this latter, during its construction, was known as the Makwar Dam. When it was completed, however, it was officially named the Sennar Dam, and Makwar, now swollen to a town, was re-named Sennar. The town previously known as Sennar was now called Old Sennar, later changed to Sennar Junction, and the ruined Fung site was left nameless. These changes are somewhat confusing, and it is as well to bear in mind that the Sennar described by the European travellers of the 16th to 19th centuries is not the same as that which appears upon the most recent maps.

The discoveries with which it is proposed to deal in this account are not new ; they have been, or are being, published elsewhere, but it has been suggested to me that the available information might with advantage be collected within the compass of a single article. The first of them was made as long ago as 1914 as a result of planned excavation on a site on the right bank of the Blue Nile (No. 1 on the map, FIG. 2) near the village of Abu Geili. This was one of the sites selected for excavation by the late Sir Henry Wellcome and the actual operations were in charge of Mr Crawford. A report on this excavation, written jointly by Mr Crawford and myself, is now in course of publication under the auspices of the Wellcome Trustees.

The next discovery was accidental and was made towards the end of 1921 on the right (east) bank of the river during the excavation of a railway cutting incidental to the

[1] Antiquity, vol. xxii, no. 85, March 1948.

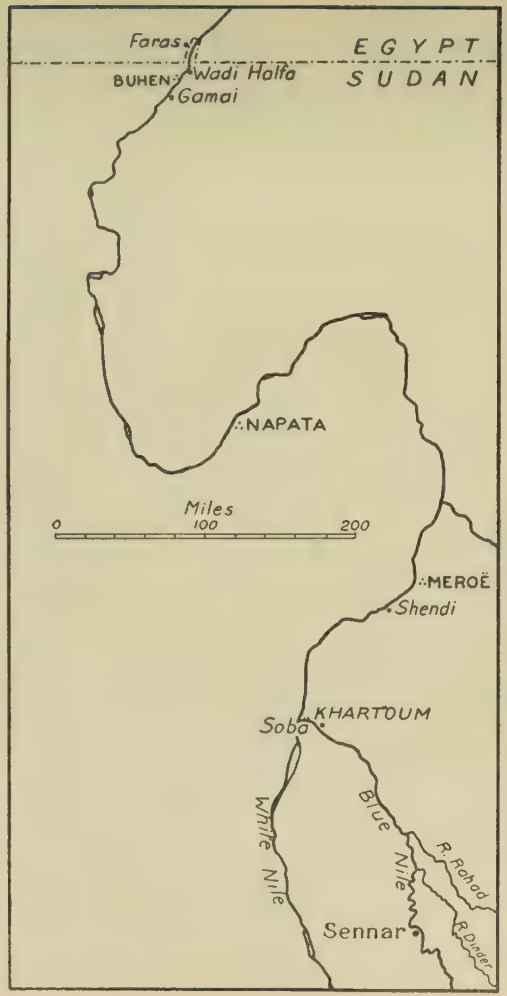


Fig. 1. THE NILE FROM SENNAR TO FARAS

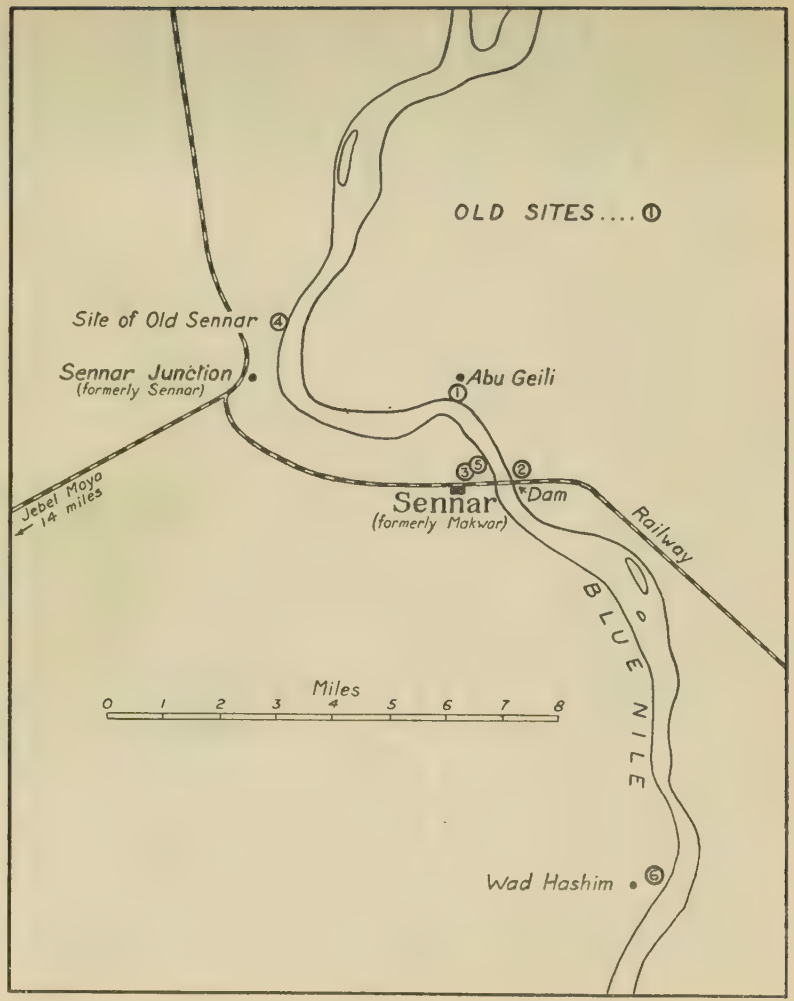


Fig. 2. THE OLD SITES IN THE SENNAR DISTRICT

construction of the Sennar Dam (Site 2 on map, FIG. 2). The cutting was a short distance from the edge of the river, a little downstream of the line of the dam, and it cut through an ancient cemetery of which the existence had previously been unknown. It was some time before news of this happening filtered through to the Antiquities Service and, when I visited the site in March 1922, I found that all the disturbed graves, an unknown number, had been completely plundered by the labourers and others engaged on the work. The spoil from the cutting had been dumped on its eastern side and there were stacks of bricks and other materials on the west, so that the extent of the cemetery was, and still remains, uncertain. A small collection of objects from the graves had, however, fortunately been preserved by one of the officials on the site, and these were handed over to me for the Sudan Government Museum. They seemed of sufficient importance to warrant publication in *Sudan Notes and Records*, the usual vehicle for contributions from officials of the Sudan Government, and I was accordingly instructed to prepare an account for this purpose. Before it was published a copy, with photographs of the objects, was sent, as a matter of courtesy, to Sir Henry Wellcome, who still maintained his excavation concession although he had not worked it for eight years. Sir Henry, somewhat surprisingly, took the view that the disturbed cemetery lay actually within the area of his concession, and he not only strongly objected to the proposed publication but demanded that the objects described should be sent to England to be stored with the as yet unpublished material from his own excavations. Whether or not his claim was justifiable need not concern us here ; the Sudan owed much to Sir Henry's benefactions in the past, and the Governor-General at the time decided that the matter was not worth arguing about. The account of the discovery was accordingly suppressed and the few objects which had survived the looting of the cemetery were packed up and consigned to Sir Henry's warehouse in England. They never reached their destination ; the ship carrying them struck a reef in the Red Sea and sank with all her cargo ! Fortunately, that was not quite the end of the story as will shortly appear.

A further accidental discovery was made near the Sennar Dam in June 1925, this time on the left (west) bank of the river and downstream of the dam, when a grave was encountered during the digging of an irrigation channel to supply water to the merkaz garden. (Site 3 on the map, FIG. 2). Once again immediate looting took place, regrettably connived at on this occasion by an English contractor ; but the local Assistant District Commissioner took action as soon as he heard of the occurrence and he was able to recover part of the contents of the grave consisting of a number of pots and a few beads. I was myself in England at the time but the objects were kept in official custody until I was able to see them later in the year. I made a few notes, took some photographs of the pots, and then handed them over to Sir Henry Wellcome's representative who bore them away to the oblivion of his camp at Jebel Moya.

The first rift in the hitherto impenetrable veil which had hidden the archaeology of the Sennar district appeared in 1934. In that year Mr A. J. Arkell submitted to *Sudan Notes and Records* an account (2) of three ancient burials exposed by erosion which he had observed whilst serving as District Commissioner, Sennar. This the editorial committee of the journal published without further ado, and, as it called forth no protest from Sir Henry Wellcome on its appearance, they decided to print my note on the earlier discovery which had been suppressed some years before. It was duly released in 1935(3), with modifications made necessary by the fact (not stated at the time) that the objects

[2] *Three Burials in Sennar District*, by A. J. Arkell. *S.N. & R.*, XVII, 1934, p. 103.

[3] *Antiquities at Sennar*, by F. Addison. *S.N. & R.*, XVIII, 1935, p. 288.

described had for a long time been lying at the bottom of the sea. It also included some mention of the discovery of the grave on the west bank of the Blue Nile in 1925.

Coming now to the details of these various discoveries, it would not be proper to anticipate the report on the excavation at Abu Geili further than to say that it deals with a village site and a cemetery, close to each other but separated by nearly a thousand years in time. The village was occupied during the early centuries of our era while the cemetery belongs to the Fung period. The village site yielded masses of broken domestic pottery, beads, and other debris of occupation, but there was nothing to suggest a standard of life higher than that to be expected in a native village.

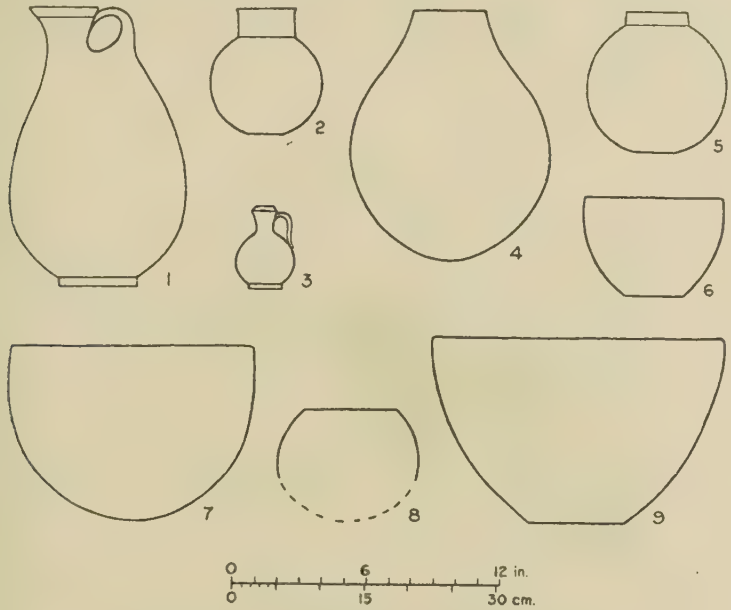


FIG. 3. POTTERY FROM THE MEROITIC CEMETERY (Site 2)

A much higher degree of material civilization was indicated by the objects from the cemetery disturbed in 1921 by the building of the dam (Site 2). They consisted of beads and other small objects, pottery and bronze vessels, and the collection was such as to be dated with some confidence to a period covered by the last century B.C. and the first century A.D. The beads were of carnelian, quartzite, Lydian stone, faience and glass; there were pendants of clear quartz, a faience Bes figure, a faience figure of the Amon ram with sun disc, an amulet of mottled granite in the form of a frog and another of crystal (? glass) in the form of a fish. There was also a mud impression from a signet ring which may have been looted at the time the graves were disturbed.

The pottery has already been described, with photographs, in *Sudan Notes and Records*, but outlines of most of the forms are given here in FIG. 3; we are not immediately concerned with the decoration upon them. Nos. 1, 2 and 3 were wheel-made, of red ware, and were in all probability imported from the north. Vessels similar to the handled

jar or *askos* No. 1 were found in 1908–10 by Woolley and MacIver at Buhen (4), in the extreme north of the Sudan, and by Reisner in the western cemetery at Meroë. Small jugs such as No. 3 were also found at Buhen and by Griffith in the Meroitic cemetery at Faras (5), even farther north. The jar No. 2 is another common Meroitic form. The remaining pots were hand-made and can safely be regarded as local products. The only one which calls for comment is the jar No. 4, a distinctive type which seems to have had much the same distribution as the wheel-made types but as a result of a movement in the opposite direction. It was found at Gamai (6), Faras (7) and Karanog (8) (in Egypt north of Faras and outside the boundary of the map, FIG 1), and on those sites was usually dated to the 1st–2nd centuries A.D. Yet pots of this type were found at Jebel Moya (9) in a context which suggests that they were some centuries earlier in date than those found further north. The form seems to have originated in the central Sudan, possibly in Kordofan, and its presence in the extreme north of the country is to be explained by a movement of trade or of people from south to north. It may be observed in passing that flat-bottomed bowls such as No. 6 in FIG. 3 were also found at Jebel Moya.

More important than the pottery and small objects were the bronze vessels, which occurred in a profusion unknown elsewhere in the Sudan. Photographs of the various types have already appeared (10) but outline drawings are again given in FIG. 4. There were ten examples of type 1, two of type 2, three of type 3, three of type 4, one of type 5 and the remains of three large basins of type 6. These latter all had the same kind of decorated rim, but one had handles of type 7 while the other two were furnished with handles of type 8. The smaller vessels were in quite a good state of preservation but the large basins, of thin metal in comparison with their size, were broken and badly corroded. It is to be remembered that the objects enumerated were only those salved from the looting of the cemetery ; the total originally buried must have been much greater.

There is nothing remarkable about the hemispherical bowls of type 1 ; they have been found on every Meroitic site on which excavations have been made, and one or two were found even at Abu Geili. The deeper form, type 2, is a survival from an earlier period and was not common in Meroitic times, while the straight-sided type 3 is unusual with no exact parallel in the north. The carinated bowl 4 is a characteristic Meroitic type, examples having been found at Meroë (see below) and on northern sites. The jug 5 is similar to one found by Garstang on the Meroë city site in 1909–14. The large basins of type 6 are, as far as I know, unique in the Sudan, for I am unaware that any others have been found elsewhere in that country. These things must have been an expensive

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[4] *Buhen*, by C. L. Woolley and D. Randall MacIver. (*The Eckley B. Coxe Junior Expedition to Nubia*, vol. VIII).

[5] *Oxford Excavations in Nubia*, by F. Ll. Griffith. *Annals of Archaeology and Anthropology* (Liverpool), vol. XI.

[6] *Excavations at Gammai*, by Oric Bates and Dows Dunham. (*Harvard African Studies*, vol. VIII), p. 41 and pl. LXII, 27.

[7] loc. cit., pl. XLII.

[8] *Karanog, The Romano-Nubian Cemetery*, by C. L. Woolley and D. Randall MacIver. (*The Eckley B. Coxe Junior Expedition to Nubia*, vol. IV), pl. 102.

[9] *Jebel Moya*, by F. Addison (*The Wellcome Excavations in the Sudan*), pls. CXI, CXIII. A discussion of this type of pot is given on p. 220.

[10] loc. cit.

imported luxury at the time and it is remarkable that they should have been found so far from the Mediterranean.

All the objects so far mentioned are, as already explained, now for all practical purposes non-existent, but there are others from the same cemetery which still survive. When I was entrusted with the task of publishing the results of Sir Henry Wellcome's excavations in the Sudan I found, during the course of my examination of the material and records, certain objects labelled ' Makwar ' which had obviously come from the cemetery under discussion. I discovered that Sir Henry, stimulated doubtless by my note and photographs sent to him in 1922, had immediately instructed his representative

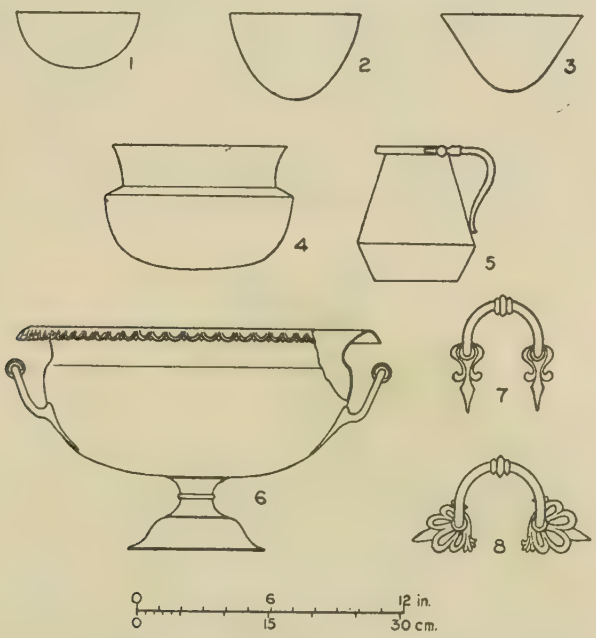


Fig. 4. BRONZE VESSELS FROM THE MEROITIC CEMETERY (Site 2)

in the Sudan, Major J. S. Uribe, to make further investigations. Major Uribe accordingly took some labourers and a sifting machine to the spot and set to work. The cemetery had by that time been so completely plundered that his labours were not richly rewarded, but he recovered a few faience ball and cylinder beads, some pendants and some fragments of bronze vessels. The pendants, of carnelian, quartzite and clear quartz, are illustrated in the PLATE, b. They are similar to those previously recovered and lost again and are of the same types as those found in the Meroitic cemetery at Faras (**11**). The bronze fragments included some rim pieces from a large basin of type 6 above, and the remainder were of a hemispherical and a carinated bowl respectively. This latter was kindly cleaned and repaired by Dr H. J. Plenderleith and it is shown in the PLATE, a. Below

[11] *Annals of Archaeology and Anthropology*, vol. XI, pls. LXII, LXIII, LXX.

the rim, on the damaged side not shown in the photograph, are two incised hieroglyphs as shown in FIG. 5. Being unable myself to read any meaning into this inscription, and knowing that bowls of this type had been found during Reisner's excavation of the Meroë pyramid fields, I sent a copy of the inscription and a sketch of the bowl to Mr Dows Dunham. He himself conducted much of the excavation and is engaged on the publication of the results. He replied as follows :

'Your bronze bowl from a site near the Sennar dam is paralleled in our excavations at Meroë (West Cemetery) in six tombs, all of which lie within the date range 100 B.C.–A.D. 100, and they are recorded *only* there by our expedition. They were not found by us either at Kurru or Nuri, and thus appear to be limited to the Middle Meroitic period as you suggested. This seems to be in general agreement with Petrie's dating of the form, see *Funerary Furniture and Stone Vessels*, Pl. XL, nos. 58 and 62–6, which he considers to be " Greek or Roman ".

The inscription in Egyptian hieroglyphs presents a problem. I know nothing resembling it from our excavations. The group *Hnm.wcnh* is, it is true, listed by Ranke in *Personennamen* (275 : 8) as occurring twice in the O.K. and once in the M.K., but not later, so there is no evidence to show that it is here a personal name, for the late period is clearly involved. *Wtb.* III, p. 378–9 gives us, I think,

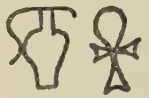

FIG. 5. INSCRIPTION ON BRONZE BOWL, 1 : 1

something possibly suggestive. Here VII (a) is the name of the funerary temple of Tuthmosis I, VII (b) is given as meaning ' Necropolis ' in the Late period, and there is also a Greek example with the meaning Hathor-Isis. All this suggests that the group has some relation to a funerary designation of the vessel.

While there is hardly enough evidence to prove anything definite, I am tempted to suggest that this vessel may well have been an import from Egypt in Late Ptolemaic or Roman times, the inscription having been incised by an Egyptian craftsman to mark it as destined for funerary use. I feel that the presence of this inscription makes it unlikely that the vessel is of local Meroitic manufacture, and we have plenty of evidence from Meroë itself indicating the fairly common import of bronzes and other objects from Egypt'.

The presence of an inscription on the bowl recovered by Major Uribe inevitably suggests the possibility that other bowls from the cemetery may have been similarly inscribed. Those now lying in the Red Sea were apparently devoid of inscription or decoration, but they were not cleaned before being sent away and the question as to whether they were inscribed or not must for ever remain unanswered.

The remains of the town or settlement to which the cemetery belonged have not been found. Abu Geili is perhaps too far away, and in any case the objects found on the habitation site there are not comparable with those described above ; even the pottery is different. The carinated bronze bowls found at Meroë occurred in the graves of the higher aristocracy, hence it is likely that bowls such as that illustrated in the PLATE belonged to persons of like estate. Obviously there must have existed on the east bank of the Blue Nile a town which for a time was comparable in importance with Faras in the

north and with Meroë itself. Such a town would have had easy communications with Meroë without the necessity of crossing the river. (The beds of the rivers Rahad and Dinder are dry during the winter months.) Quite possibly it was the administrative centre of the southern provinces of the kingdom, the seat of a governor who may even have been a scion of the royal house itself. While it existed there was, on the evidence of the finds, freedom of communication not only from Sennar to Faras but from Sennar to the Mediterranean, and this connotes good administration and settled conditions in the Nile valley which were not to recur for two thousand years. This southern capital was abandoned—or possibly it may have been attacked and overwhelmed—some time towards the end of the 2nd century A.D., when the Meroitic kingdom was beginning to break up from its perimeter. It does not seem ever to have been re-occupied but some trace of it may yet be found, unless, indeed, it is buried for good beneath the dam.

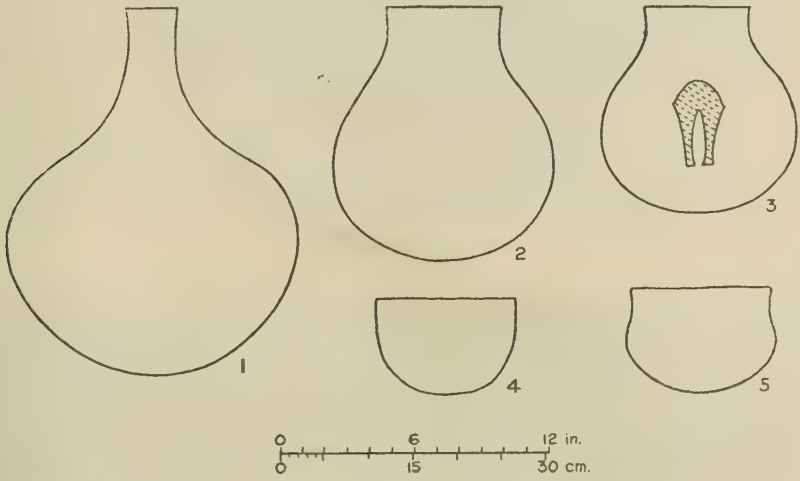


FIG. 6. POTTERY FROM SITE 3, SENNAR

The grave discovered in 1925 near the dam on the West bank of the river (Site 3) belonged to a much later period. According to the report of Mr G. M. Hancock, the Assistant District Commissioner at the time, it was found about 40 cm. below ground level, was circular, about 2 metres in diameter, and was approached from the northeast by a sloping passage, the entrance to the tomb being closed by a stone slab. It was said to have originally contained ' about 40 pots, a number of disintegrated human bones, some scraps of silk and some coloured beads '. As regards the pottery Mr Hancock wrote : ' Unfortunately most of the large *burmas* and *gullas* were stolen by workmen on the dam before I could secure them. However, I now have two *burmas* and about twenty smaller pots which apparently did not appeal to the thieves to the same extent as the larger ones '.

The pottery forms are shown in FIG. 6. The larger vessels (presumably the *burmas*) are those shown at 1, 2 and 3, and the small bowls varied in shape from No. 4 to No. 5 ; all of them were hand-made. The bowls, except one which was red-polished, were of black ware, smoothed but not polished. They were devoid of decoration on the outside but most of them had a slight decoration inside the rim, either incised with a sharp tool

or impressed with a toothed ' rocker ' ; the impressions were in many cases filled with a red pigment. The jars Nos. 2 and 3 were black polished and they, too, had a red-filled decoration round the inside of the rim. The necked pot No. 1 was covered with a polished red slip, without mat-marking on the bottom, and is of similar form to the large beer jars found by Garstang in some of the later tombs at Meroë.

As for the ' scraps of silk ' found in the grave, these turned out to be a fluffy mass of some fibrous substance which was not positively identified. Microscopic examination showed it to be neither silk, cotton nor wool, but a straight lustrous fibre unsuitable for spinning. It may have been fibre from the plant locally known as *ushr* and intrusive in the grave. The beads referred to were 3 small flattened ball beads of green beryl, 4 red paste barrel beads and one carnelian bead.

It is difficult to say how much later this grave is than the cemetery on the east bank of the river. I originally dated it, tentatively, to the 4th–5th centuries A.D., but I am now inclined to think this may be too early. The pottery is of a type not found at all in the northern Sudan, nor did it occur at Jebel Moya, but it has affinities with some of that found on the habitation site at Abu Geili. There the impressed decoration on the

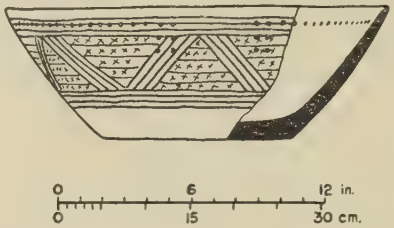


FIG. 7. BOWL FROM FUNG GRAVE, SITE 4, SENNAR

pottery was usually filled with red pigment, and a device such as that on the pot No. 3 in FIG. 6 was a basic element in the decorative designs. Black-polished carinated bowls were also common at Abu Geili, and the form No. 5 in FIG. 6 suggests this shape, though it is more likely to be a recession from, rather than an advance towards, the sharply defined carination. On the other hand, bulbous, narrow-necked pots such as No. 1 in FIG. 6 did not occur at Abu Geili and, in general, the pottery on that site was of better quality than that from the grave under discussion. There were also found at Abu Geili fragments of ' Jebel Moya ' ware and of recognizably Meroitic pottery—wares which did not appear to be in use at the time the grave on the west bank was dug. The evidence, such as it is, suggests that this grave belongs to a period contemporary with the later occupation of the Abu Geili site and may therefore be dated to the 6th–7th centuries. There is, it must be admitted, as yet no means of dating finds of this kind with any approach to accuracy.

We turn now to the three burials noted by Mr Arkell and published by him in *Sudan Notes and Records* (12). The first of these was found on the west bank of the Blue Nile on the site of the old Fung city (Site 4 on the map, FIG 2). It had been exposed by a fall of the steep-sided river bank and was found in the cliff face about three feet from the top. The body appeared to have been buried in a fully extended position, and inverted over the head and shoulders was a broken, flat-bottomed bowl, FIG. 7. (This figure is based on the sketch and dimensions published by Mr Arkell). This

[12] Vol. XVII, 1934, p. 103.

*a.* BRONZE BOWL FROM THE MEROITIC CEMETERY AT SENNAR, EAST BANK

*b.* PENDANTS FROM THE SAME CEMETERY (scale in centimetres)

*facing p.* 20

bowl was hand-made, of coarse, black pottery, ill-fired and unpolished, and on the outside was a deeply but roughly incised geometrical design. There was a row of holes below the rim for most of its circumference, and there were two sets of six holes for some purpose unknown. Inside (? underneath) the bowl were found 28 small glass beads, brown, green, blue and black, and an ostrich egg shell disc head.

This burial is exactly like many of those in the Abu Geili cemetery (13). On that site flat-bottomed bowls of the same general type as that shown in FIG. 7 were found in most of the graves, and in several cases they were inverted over the heads of the bodies in just the same manner as that described by Mr Arkell. The burial therefore unquestionably belongs to the same period as those in the Abu Geili cemetery, namely, to the Fung period, 16th–18th centuries.

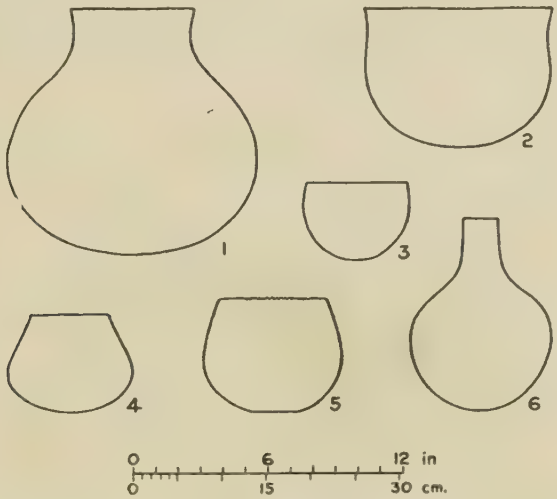


FIG. 8. POTTERY FROM GRAVE, SITE 5

The second burial mentioned by Mr Arkell was exposed by the fall of the Blue Nile after the 1931–2 flood, on the west bank of the river about a quarter of a mile north of the Sennar dam (Site 5). On clearing the grave the skeleton was seen to be lying on the right side, with the knees bent but not in a fully contracted position, head to the north and facing west. The hands were raised in front of the face and were holding the pot No. 4 in FIG. 8. The other pots shown in this figure were also found in the grave; all of them were hand-made. (The outlines in FIGS. 8 and 9 have been drawn on the basis of the measurements and photographs published in *Sudan Notes and Records*). The jar No. 1 was of red ware, and all the rest of black ware, unpolished except for Nos. 4 and 5. The latter had a notched rim. No. 1 had a double band of incised decoration round the rim on the outside, and No. 2 had a band of incised cross-hatching under the rim on the outside and a slight stabbed decoration inside the rim. The remaining pots were undecorated. Also in the grave were five barrel beads of white quartzite and a few

[13] *Abu Geili*, by O. G. S. Crawford and F. Addison (*The Wellcome Excavations in the Sudan*), pls. XIII, XIV.

coloured glass beads which, from their position, had probably once formed a bracelet round the right wrist of the body.

This grave was found not far from that discovered in 1925. Whether or not the two belonged to the same cemetery is not certain, as the position of neither was accurately plotted, but it is evident that they belonged to much the same period. Mr Arkell observes that near the grave on the foreshore were found a number of potsherds of finer ware, suggesting that an earlier, Meroitic, cemetery had been eroded away by the river.

The third grave which Mr Arkell noted was found (? in 1932) a yard below high reservoir level on the west bank of the river about half a mile north of Wad Hashim village and south of the dam (Site 6). It was disclosed as a result of erosion caused by the filling of the reservoir. The grave was oval, the body having apparently been buried in a sitting position, and adjoining it to the north was a circular hole in which were found the pots shown in FIG. 9. With the body were found ten ground cowries, some tubular beads of green and black glass, some ostrich egg shell disc beads, some ' white '

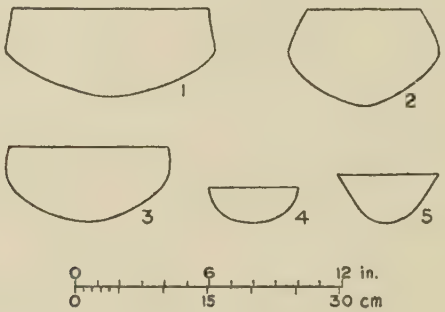


FIG. 9. POTTERY FROM GRAVE, SITE 6

(? quartzite) beads and two small beads of carnelian. Beads of much the same kind found on the surface in the same locality the previous summer indicated that the area was an old burial ground.

The pottery was all black-polished, with a more lustrous finish than that found on any pottery from the sites, including Abu Geili, hitherto mentioned. The bowl No. 1 in FIG. 9 had four small knobs equally spaced outside on its greatest circumference and had an incised decoration inside and outside. The bowls Nos. 2 and 4 had one knob and No. 2 had a band of simple incised decoration below the rim. This pottery is different from any so far mentioned and resembles some found by Garstang in a late cemetery at Meroë itself, and some accidentally discovered at Shendi. It is post-Meroitic in date and, though it cannot definitely be called Christian pottery, it probably belongs to the period when the Christian kingdom of Aloa, with its capital at Soba, had already become established. It may be regarded, without very strong evidence, as later than that from Sites Nos. 3 and 5, possibly 7th–8th centuries.

It is useless to pretend that these various discoveries shed more than a dim and fitful light upon the dark places of the history of the Sudan. The available material does not enable us to form a complete, or even recognizable picture, but provides only a few shadowy intimations like those which first appear during the development of a photographic plate.

A glance at FIGS. 3, 6, 7, 8 and 9 shows that we have to deal with four groups of pottery which have little or no connexion with each other, and the differences between these groups are to be explained by a movement of peoples or tribes rather than by any process of evolution. The earliest group is that from the Meroitic cemetery, Site 2, and consists of wheel-made ware imported from the north and local hand-made pottery. The affinities of this latter are with some of that found at Jebel Moya and not with anything from Abu Geili. Some centuries later appears the second group consisting of the pots from Sites 3 and 5; later still comes the pottery from Site 6, and nearly a millennium after this come the Fung wares from Site 4 and the cemetery at Abu Geili.

The relationship between the habitation site at Abu Geili and the town which must have belonged to the Meroitic cemetery (Site 2) is difficult to make out. The characteristic pottery of Abu Geili is of a kind found neither in this Meroitic cemetery, nor in the northern Sudan, nor at Jebel Moya; it was therefore probably introduced to the district by a people advancing from the south or south-east. Also, the type of local pottery found in the Meroitic cemetery was not found to any appreciable extent at Abu Geili. It might seem, then, that invaders from the south first overwhelmed the hypothetical Meroitic town (which, to save circumlocution, I will call Early Sennar) and then founded a settlement of their own close by. The event, however, was probably not quite as simple and clear-cut as that. Amulets (**14**) and other small objects were found in the lowest levels at Abu Geili of a kind to suggest that a settlement existed there in early Meroitic, if not in Napatan, times, and pendants of the kind illustrated in the PLATE, b were also found in small numbers on the site (**15**). This settlement, then, was already in existence when Early Sennar was founded, possibly, as suggested earlier, as the seat of a governor of the southern provinces. The new town, it may be assumed, absorbed the few people then living at Abu Geili and this latter site was for a time deserted. The first appearance of the advancing southerners may well have been in the nature of an infiltration rather than an advance in force, and they may have been allowed to settle, without interference, on the deserted site at Abu Geili so that two towns would exist not far apart. It would not, in that case, be surprising if a few beads or an occasional carnelian pendant found their way from Early Sennar to Early Abu Geili. Later arrivals from the south would tend to join their kinsmen, and their settlement at Abu Geili would grow in size and importance. In course of time, perhaps about the end of the second century A.D. when the kingdom had begun to decline towards its fall, the Meroitic outpost at Early Sennar was abandoned and the governor withdrawn. Those of the original native population who were not assimilated probably migrated northwards and the country was given over to those southern tribes which had moved in long before the Axumite invasion of A.D. 350. Abu Geili, however, continued to flourish for some centuries to come, and beads and other objects found there show that it maintained some sort of trade connexion with the north.

The second group of pottery, that from the graves on Sites 3 and 5, is in the same tradition as much of the Abu Geili pottery, though somewhat debased. The people who made it were probably of the same racial stock as those in the Abu Geili district, but there is nothing to show whether they left that region for the west bank of the river at a time fairly late in the history of Abu Geili, or whether they were late comers direct from the south.

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[14] *Abu Geili*, pl. LA.

[15] ibid, pl. LB.

The pottery from Site No. 6 appears to have no connexion with Abu Geili. It does not occur in the northern Sudan but, being found in places as far apart as Meroë and Wad Hashim, it may not have originated actually in the south but may have been developed in the neighbourhood of Meroë or in the Gezira (16). In both those regions there were settled at the time people originally of southern stock who would be familiar with the technique of making black-polished pottery and capable of adapting it to new forms. It is therefore possible that the pottery from Site No. 6 may be an indication of a drift of people backwards towards the south. All this, however, is highly speculative.

Between this pottery and our latest group—the Fung pottery from Site No. 4 and the Abu Geili cemetery—there is a gap in time of several hundred years, and chance has provided no material to illustrate whatever ebb and flow of peoples along the Blue and White Niles there may have been during this period. The Fung pottery represents the last advance of any consequence from the south, and, after the power of the Fung kings had declined, the history of the negroid tribes in the Sudan until nearly the end of the 19th century was one of retreat before the Arab slave traders into the swamps of the White Nile and the fastnesses of the Nuba Hills.

[16] The area in the angle between the Blue and White Niles.

# Tables in Roman Britain*

by Joan Liversidge

IT is but rarely that we light upon any trace of those articles of furniture which must have been in daily use in every Romano-British home. The purpose of this article is to call attention to a series of objects which contribute something to our scanty knowledge of this subject, namely the carved fragments of Kimmeridge shale occasionally found during the excavation of Romano-British sites. Of these no less than seven are on view in the Dorchester Museum (1). All were found at or near Dorchester, and there seems no reason to doubt that they were made locally, as a shale industry is known to have existed in Dorset since Neolithic times.

The best known piece is probably the one discovered at Colliton Park, Dorchester, in a rubbish pit 16 feet deep, lying beneath the hypocaust of one of the houses of the Roman town of Durnovaria (PLATE I, 1) (2). It consists of the leg of a piece of furniture with a tenon top made to fit into a mortise in some flat surface. The upper part of the leg is carved to represent an animal's head with an open mouth and a lolling tongue, the latter being extended in an unrealistic manner to join the leg, which swells out to meet it. Below the animal's head the leg is cut away in a semi-circle at the back and shows in front a fluted band which may perhaps be a reminiscence of some form of foliate ornamentation. Behind the animal's head is a small notch. The leg itself terminates in a claw foot. Part of another leg of this type, a little smaller in size, was found on the villa site at Frampton near Dorchester (PLATE I, 2). This is carved with a head resembling that on the Colliton Park leg, but here a space has been hollowed out between the elongated tongue and the animal's neck, and the band of fluted ornamentation is missing. A third example was discovered during the excavation of the villa at Preston, near Weymouth (PLATE I, 3) (3). Of this fragment only the left-hand side is intact, the right-hand side having split away in an almost straight line. The head survives, but the tenon has been broken off, and most of the animal's tongue has disappeared. On the fragment of a fourth leg which comes from South Street, Dorchester, the extended tongue survives, although the carved head itself has unfortunately been destroyed. The lower parts of two legs ending in claw feet were also found in South Street, and another foot of the same type was recovered from the Roman level at Maiden Castle (4).

Objects of Kimmeridge shale are, indeed, by no means confined to the Dorset area, but occur frequently in many parts of the country, usually in the form of armlets and the like. In the Leicester Museum, however, there is the upper half of a carved shale leg

* I should like to thank Dr J. M. C. Toynbee for valuable suggestions in connexion with this article.

[1] I am much indebted to Lt.-Col. Drew and to the authorities of the Dorset County Museum, Dorchester, for permission to have these fragments photographed and to publish them.

[2] *Proceedings of the Dorset Natural History and Archaeological Society*, LIX, 1938, p. 9, pl. VIII, c.

[3] *J.R.S.*, XXIII, 1933, p. 206, pl. XXIII.

[4] R. E. M. Wheeler, *Maiden Castle, Dorset* (Report of the Research Committee of the Society of Antiquaries of London, 12), 1943, p. 320, fig. 111, no. 23.

with an animal's head very similar in style to that from Colliton Park. It came from the villa at Rothley which was partially excavated in 1901, and may have been among the debris dug out of a well, where the rest of it perhaps still lies concealed. It measures $8\frac{1}{2}$ inches in length (PLATE I, 4) (5). The tenon top is very well preserved; but the main part of the leg has been broken off at the level of the creature's muzzle, at the point where, judging from the other examples, it would have swelled forward into a semi-circle. The carving behind the head may represent a stylized mane.

The first question raised by these legs is that of the article of furniture to which they belonged. The excavator of the Preston villa published a conjectural reconstruction (6) in which the fragment from that site features as the front of the arm of a chair; while the Colliton Park piece has been described as a chair-leg. (See Note 2). But I know of no ancient representations of chairs in domestic use with arms or legs thus adorned; and a comparison of the Dorchester and Leicester fragments with the remains of actual furniture surviving in other parts of the Roman Empire, or with furniture depicted in works of art, such as sculptured reliefs or paintings, suggests the conclusion that they belonged, not to chairs, but to small tables. Round tables with curved legs ending in claw feet are of frequent occurrence both in Hellenistic and in Roman Imperial times (7). They may have either one or three legs; and as the Colliton Park and Frampton legs have a notch for a cross-bar behind the animal's head, it seems probable that our examples belonged to the three-legged type. Tables with such legs, but without the animal-head decoration, occur on some Romano-British grave reliefs, such as the two well-known examples in the Yorkshire Museum in York dedicated to Aelia Aeliana and Julia Velva respectively, both showing representations of funeral banquets (8). Animal-heads appear on what may be the representation of a small round table on a fragmentary funeral banquet (?) relief in the Guildhall Museum (9). But for the animal-head decoration in general we must look outside Roman Britain, and the closest parallel to our shale legs so far known is afforded by a recent find made during the excavations of the Casa dell'Atrio Corintio at Herculaneum. This is an almost complete wooden three-legged table, shortly to be published in the *Notizie degli Scavi* by Professor Maiuri, to whom I am greatly indebted for the news of its discovery. Its legs have the usual tenon tops which fit into mortises on the underside of the table. They resemble the Colliton Park and Frampton examples in shape but are naturally of more delicate workmanship, since Kimmeridge shale does not lend itself so well as wood to slender lines, quite apart from the fact that Campanian craftsmen are likely to have been much more skilled than those in provincial Dorset. A detail from a recently published relief

[5] The other measurements are:—width of the animal's head, across the back of the leg, 3 inches; side width from the tip of the animal's muzzle to the back of the leg, $3\frac{7}{8}$ inches; width of the leg exclusive of the carving, 2 inches at the top and $1\frac{1}{2}$ inches at the base. After seeing this object in the Leicester Museum and identifying it as a table-leg, I found brief references to it, without illustrations, in W. R. Lethaby, *Londinium: Architecture and the Crafts*, 1923, p. 128 and T. D. Kendrick, *Anglo-Saxon Art to A.D. 900*, 1938, p. 30. Kendrick describes it as made of wood, but further examination has shown that the material is actually Kimmeridge shale. This photograph is published by kind permission of the authorities of the Leicester Museum.

[6] *J.R.S.*, XXIII, 1933, p. 206, fig. 15.

[7] A good account of them can be found in W. Deonna, *Le Mobilier délien* (Exploration archeologique de Dèlos, fasc. XVIII), 1938, p. 43 ff. *Cf.* ibid, pls. XVI, XVII, XIX, XX, XXI.

[8] Gordon Home, *Roman York* 1924, pls. opposite pp. 48, 72.

[9] *Roman London* (Royal Commission on Historical Monuments (England) an Inventory of the Historical Monuments in London, vol. III, 1928, p. 45, pl. IX.

in the Antiquarium Comunale in Rome (PLATE II, B) (10) shows carpenters working on a wooden table of this type with curved legs decorated with animal heads and joined by cross-bars.

Our next question concerns the species of animal which the carved heads from Rothley and the Dorset sites are intended to represent. On first inspection the Rothley head, in particular, suggests a lion, and indeed the lion was the animal most frequently selected to embellish tables of this sort. It appears, for instance, on a table carved in relief on the Severan Arch at Leptis Magna (11), on one carved on the front of the pulpitum of the theatre at Sabratha (12), and on one shown in the interior of the Simpelveld sarcophagus (13). Another example is depicted on a mosaic pavement from Antioch-on-the-Orontes (14). The legs of a fine marble table now in the Museo Nazionale in Naples (PLATE III) (15) show lion heads emerging from collars of acanthus foliage, and it was a dim reminiscence of something of this kind which perhaps inspired the fluted ornament on the leg from Colliton Park (PLATE I, 1). Another marble table in the Casa dei Cervi at Herculaneum closely resembles that at Naples, but here it is a panther's head which rises from the foliage (16). In the Museum at Sabratha is a beautiful head of a panther made of white alabaster, which clearly belonged to another such table-leg: its shape is not unlike that of the heads from Rothley (PLATE I, 4) and Frampton (PLATE I, 2). None of these animals shows the elongated tongue of the Dorset examples, for this we must turn to the well-known table support from Pompeii (17) with winged griffins, which have heads bearing so striking a resemblance to those of the Dorset beasts that we may wonder whether it was griffins rather than lions which the Romano-British carvers sought to portray.

The shale legs from Colliton Park and Preston exhibit another interesting decorative feature when viewed in profile. On the lower half of the Colliton Park example is carved a long slender leg, rising out of the claw foot, and ending in a hoof just below the band of fluted ornamentation. The significance of this is made clearer by the Preston fragment (PLATE I, 3) which consists of the upper half of a leg of which the lower part was broken off just where it began to swell out into a semi-circle. Above the break the leg is embraced between the forepaws of an animal, which is apparently climbing up it, with its flattened outstretched head carved on the front and its shoulders distorted so as to reach to either side. The ears lie back, but the muzzle has been mostly destroyed. One long slender paw can be clearly seen. This representation of an animal climbing up the leg is, so far, unique in this country, but there are earlier examples of it from elsewhere. In the British Museum is the lower part of a wooden leg found at Panticapaeum, in the Crimea (18), and carved in imitation of an antelope's foreleg. The shape of this leg,

[10] *Capitolium*, 1947, p. 21 ff.

[11] *Africa Italiana* IV, 1931, p. 89, fig. 56.

[12] ibid, III, 1930, p. 37, fig. 33.

[13] E. Espérandieu, *Recueil général des bas-reliefs de la Gaule romaine*, XI, 1938, no. 7795.

[14] D. Levi, *Antioch Mosaic Pavements*, 1947, I, p. 187; II, pl. XLII: 'House of the Boat of Psycheo', A.D. 235–312.

[15] Photo. Alinari, Napoli, 11179.

[16] A. Maiuri, *Ercolano* (Itinerari dei Musei e Monumenti d'Italia, no 53), 1937, fig. 54; *Ercolano* (Visioni Italiche), 1932, p. 73.

[17] Photo. Alinari, Napoli, 11172.

[18] I have to thank the authorities of the Department of Greek and Roman Antiquities of the British Museum for information about this fragment. Cf. G. M. A. Richter, *Ancient Furniture*, 1926, fig. 215, but this is not a very clear picture.

at the point where it swells out in a semi-circle in front of the hock, recalls that of the Frampton and other examples, but here the protruding portion is adorned with a delicate representation of stylized acanthus leaves. From out of the leaves there emerges an animal, the distorted shoulders and slender forelegs of which embrace the table leg in the same way as does the animal climbing up the lower part of the Preston fragment. Unfortunately the animal's head and the upper part of the table leg are missing here, but comparisons with the remains of a three-legged wooden table found in 1842 in a tomb by the Kerch public garden suggest that the animal was probably a greyhound (**19**), and this identification was indeed adopted by the excavator of the Preston villa (**20**). A bronze tripod found at Pompeii also has legs of this type (**21**).

Of interest in connexion with the Panticapaeum leg are the remains of a wooden table found at Luxor in Egypt, and now in the Musée du Cinquantenaire in Brussels (PLATE IV) (**22**). Part of one leg, and the whole of a second, 0.79 m. in length, survived, as well as the table top which varied from 0.55–0.58 m. in diameter, and was made in two layers with a slight cup-like depression in the upper one. It is supported by legs decorated with swans' heads and necks, rising from acanthus foliage more realistically rendered than on any of the other examples mentioned above, with the exception of the Campanian tables, and ending in an antelope's hoof. The date of this object cannot yet be determined, but it is interesting to find a representation of a very similar table carved on a grave relief of the Roman period now in the Museum of Antiquities in Istanbul (**23**).

In the case of our British tables of Kimmeridge shale, it is curious that only one fragment possibly belonging to a circular table-top has, so far, been found. Pieces of shale often described as trays, are known from several sites, including the Preston villa, but these are usually rectangular in shape and may have been fixed on to articles of furniture as a decorative veneer. The Roman villa at Brading, however, did produce fragments of a circular piece of shale turned on the lathe, and made with what is described as a slight footstand on its underside (**24**). This might have formed part of a table-top: if so it would have been a very small one, as it cannot have been more than 16 inches in diameter when complete.

There is one more shale fragment from Roman Britain which may have belonged to a table-leg. This is a piece from the Braybrooke Collection, found on the site of the villa at Foscott in Buckinghamshire, and now in the Museum of Archaeology and Ethnology in Cambridge (**25**). It measures about 3 by 4 inches and has the usual tenon top, and like the Preston fragment one side has split away in an almost straight line. The surviving piece shows in place of a carved animal's head a curious spiral motif. It is possible that this may be a tail, perhaps of some kind of sea-beast, but if so, it would be the tail of an animal climbing down the leg, and not up it, and there seem to

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[19] S. Reinach, *Antiquités du Bosphore Cimmérien*, 1892, pl. LXXXI; Sir E. H. Minns, *Scythians and Greeks*, 1913, p. 333.

[20] *Proceedings of the Dorset Natural History and Historical Society*, LIV, 1932, p. 27.

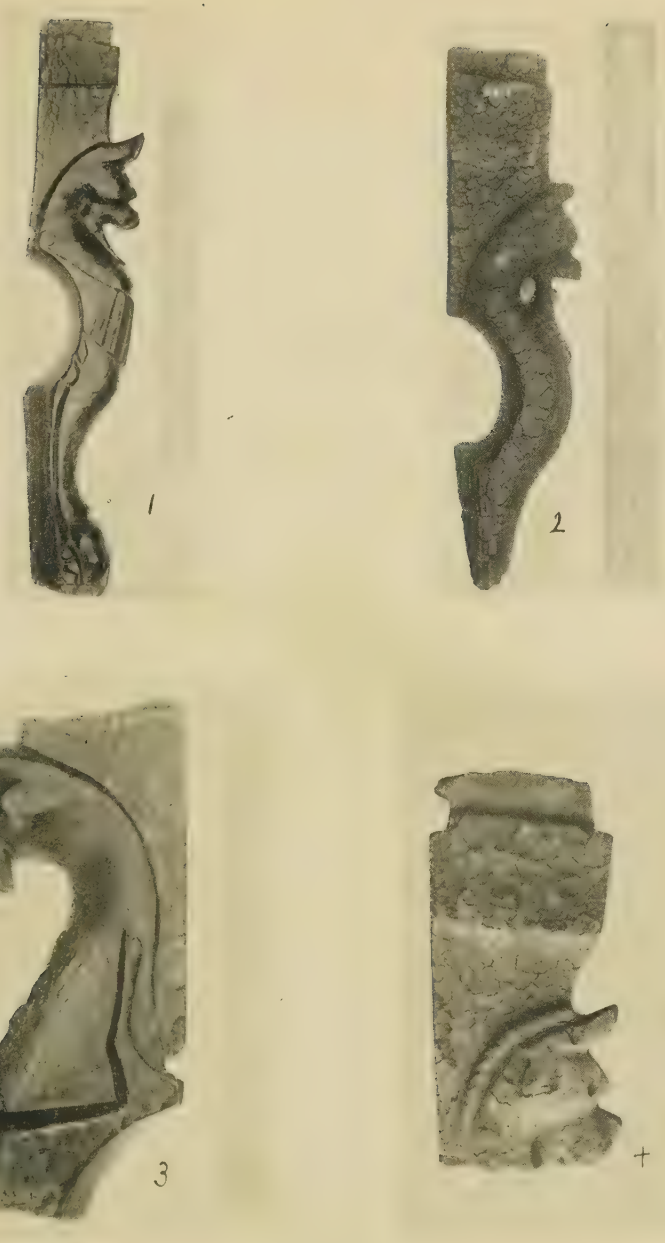
[21] V. Spinazzola, *Le arti decorative in Pompei e nel Museo Nazionale di Napoli*, 1928, pl. 263.

[22] This photograph is published by kind permission of the authorities of the Musée du Cinquantenaire. Cf. Richter, op. cit., fig. 213.

[23] Richter, op. cit., fig. 214.

[24] J. E. and F. G. H. Price, The Roman Buildings at Morton, near Brading, 1881, p. 25.

[25] For an account of the villa, see *Gentleman's Magazine* 1838, I, p. 302; 1841, I, p. 81; 1843, I, p. 303.




ROMAN TABLE-LEGS

1. Colliton Park, Dorchester
2. Frampton, Dorset
3. Preston, near Weymouth, Dorset
4. Rothley, Leicestershire

The ruler is 12 inches (30 cm.) long

*facing p.* 28

*a.* GRAVE RELIEF FROM NARBONNE (Musée Lapidaire, Narbonne)

*b.* RELIEF IN THE ANTIQUARIUM COMUNALE, ROME

MARBLE TABLE IN NAPLES MUSEUM

WOODEN TABLE FROM LUXOR (reconstructed)
(Musée du Cinquantenaire, Brussels)

BAN THAMEN CHAI, 15° 01′ N., 102° 55′ E., BURIRAM PROVINCE, EASTERN SIAM
A TYPICAL MULTIPLE RAMPART SITE
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*a.* AN UN-NAMED SITE PARTIALLY DESTROYED BY AGRICULTURE IN BURIRAM PROVINCE, EASTERN SIAM

*b.* A DEFENDED ROCK OUTCROP SITE NEAR PHRA LAP, 16° 29′ N. 102° 40′ E., IN KHAUNKAEN PROVINCE, EASTERN SIAM

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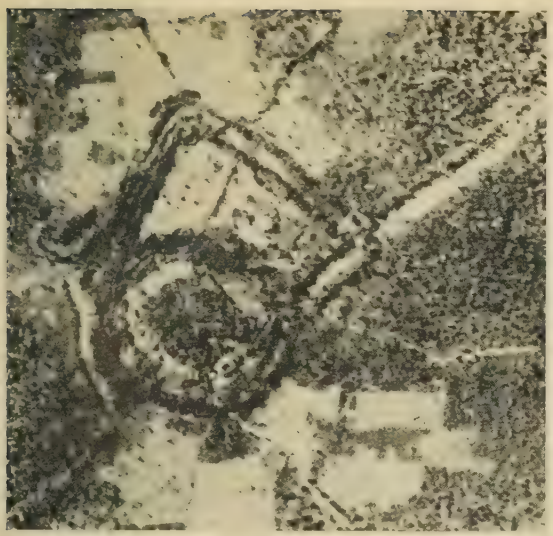

*a.* BAN SAI, 14° 41′ N., 103° 04′ E., BURIRAM PROVINCE, EASTERN SIAM. A CIRCULAR EARTHWORK WITH LATER RECTANGULAR ADDITION

*b.* NEAR BAN SAUK, 14° 59′ N., 103° 35′ E., SURIN PROVINCE, EASTERN SIAM. A SMALL IRREGULAR EARTHWORK ENCLOSED IN AN EARLY ATTEMPT AT REGULAR PLANNING

*c.* MUANG SURIN, 14° 50′ N., 103° 30′ E., A ROCK OUTCROP SITE WITH LATER MORE REGULAR ADDITIONS

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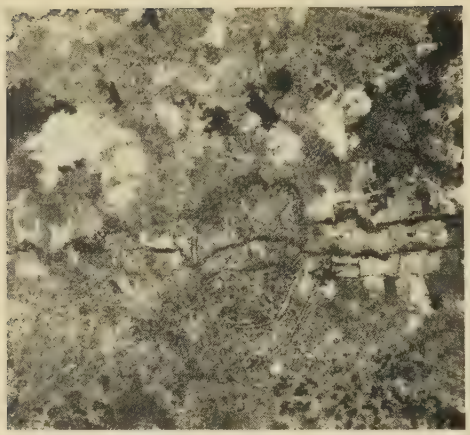
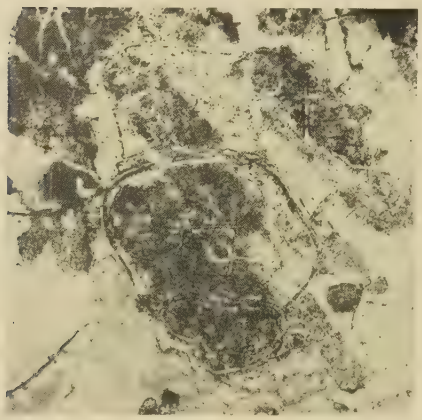


*a.* A LARGE TOWN SITE SHOWING SIGNS OF PROLONGED OCCUPATION FOUR AND A HALF MILES WEST OF ARANYA PRATHET, PRACHINBURI PROVINCE, EASTERN SIAM



*b.* MUANG SIMA, 14° 55′ N., 101° 46′ E., NAKHAUN RACHASIMA PROVINCE, EASTERN SIAM, AN EXTENSIVE, ABANDONED CITY SITE COMMANDING ONE OF THE MAIN PASSES INTO EASTERN SIAM

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be no other examples of such a variation. As a purely ornamental motif the spiral is found on bronze legs in the Naples Museum (26). But the closest parallel is provided by a grave relief from Narbonne which shows a funeral banquet with a three-legged table of the familiar type (PLATE II, A) (27). The carved decoration has unfortunately only survived on one leg, but there it seems to consist of a spiral similar to that on the Foscott fragment.

We are able, then, to form a fairly clear idea of at least one item of domestic furniture current in Romano-British town and country homes, namely the small three-legged table of shale. The material and workmanship of our surviving fragments alike proclaim their local origin. But in shape and in the character of their ornamentation they mostly conform to a well-established, classical type widespread throughout the Roman world.

[26] H. Roux, *Herculaneum et Pompéi*, VII : *les bronzes*, 1840, pl. XCVIII.

[27] Espérandieu, op. cit., I, 1907, no. 643.

# Irregular Earthworks in Eastern Siam: an air survey

by P. D. R. Williams-Hunt

DURING the war and in the immediate post-war period the Royal Air Force and the United States Army Air Force undertook a considerable air survey programme covering Burma, Siam and French Indo-China. In Siam the initial cover was restricted to large-scale (1:15,000 and better) photographs of towns, airfields and communications. Later a more ambitious programme of survey cover (scales 1 : 50,000 and 1 : 25,000 with a few towns and beaches at larger scale) was undertaken, and practically the whole of the country has been covered by air photographs of one scale or another.

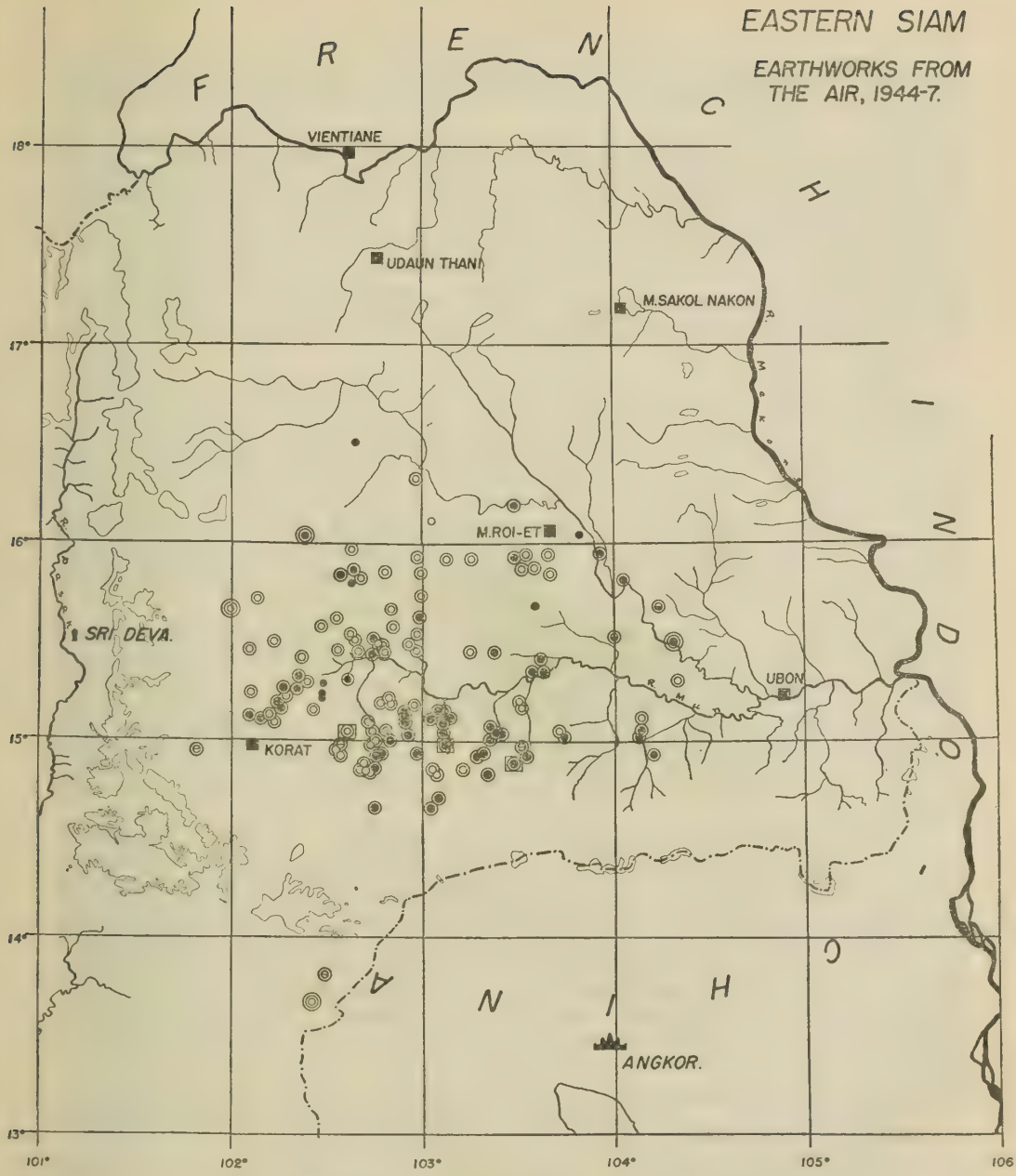
It has been my privilege to serve with the R.A.F. in Siam on both ground and flying duties and, more recently, to be in a position to examine most of the photographs taken. A very considerable number of archaeological sites have come to light, many being noted for the first time ; and it is my intention in this initial paper to comment briefly on one particular type of earthwork which appears to have a limited distribution in eastern Siam (1). The air photographs are reproduced with the sanction of the Air Ministry.

It must be emphasized that although Siam, the meeting place of Indian and Chinese cultures, is rich in archaeological sites very little systematic work has yet been undertaken. On the one side the natural reluctance of the Siamese to disturb ancient sites and, on the other, comparative absence of trained archaeological research workers have been contributory factors (2). Detailed ground information generally is lacking and it follows that these notes are based on air photographic evidence, in most cases without ground checking, an impropriety of which the writer is only too well aware.

Geographically Siam falls into a number of distinct natural divisions only one of which, the *Eastern Plateau*, concerns us here. This region extending between Longitude 101° and 106° East and between Latitude 14° and 19° North may be described as the *Korat plateau* and the *Korat marginal highlands*, Korat or Nakhon Rachasima (102° 05′ E; 15° 00′ N) being the principal town in this region. The marginal highlands lie on the West, and on the South of the plateau, rise in places to over 4,000 feet and form an exceedingly rugged and forested barrier. The plateau itself is of sandstone composition with alluvial pockets, and its surface vegetation in undeveloped districts is mainly dry monsoon forest although there are some swamp and lake areas. Drainage is to the East and South East into the River Mekong which forms the Eastern and Northern boundaries delimiting Siam from French Indo-China. This river is relatively unnavigable, or was

[1] There is a great future for archaeological air work in Siam particularly in view of the difficult ground communications. To arouse interest the writer has prepared an article on the basic theory of archaeological air-photography which is being published in the journal of the Siam Society.

[2] Of course there have been notable exceptions. The names of Coedes, Seidenfaden, le May and the late Prince Damrong may be cited ; but most of these men were primarily engaged in other walks of life, and they lacked the time and facilities to undertake the basic fieldwork so badly needed in Siam.




ABANDONED SITES IN OUTLINE. OTHER SITES ARE OCCUPIED BY MODERN SETTLEMENTS

Areas 1500 feet and over above sea level enclosed by contour-lines

so at least in ancient times, and is of considerable width. The whole area forms a complete and isolated geographical unit in which a specialized culture might be expected to develop.

Modern communications are few, being limited to two railway lines (Korat-Ubon and Korat-Udorn) and some indifferent roads, although new development is projected. Large scale photographic cover has been restricted to these main communication lines ; but except for a large gap east of Roi-et, an area which appears from ground reports to be comparatively devoid of archaeological sites, and a few other minor gaps, there is complete air cover at 1 : 50,000 scale. This is a large enough scale to locate the major archaeological sites by size, but isolated temples and shrines are liable to be overlooked. The disadvantages of this type of cover in relation to the type of site described are mentioned in some detail below.

Working away from Siam, on maps, published works and air photographs the archaeologist is beset with numerous problems which do not readily solve themselves. Two of the major problems are bad mapping and wide variation in the spelling of place names. The greater part of the area under review is very indifferently mapped in both British and Siamese versions and there is a distressing tendency to show projected roads and railways as *faits accomplis*. As an example of spelling Korat, on one map it appears as Nakhaun Rāchasīma. Siamese (Thai) being a tonal language with a large alphabet cannot be exactly rendered in English, and the place-names given here must be regarded as an approximation only. (It was originally intended to print the site names in Thai script but typographical difficulties have prevented this).

The net result is that the writer is unable to guarantee his plotting exactly, although it is unlikely that any sites are shown more than four or five miles from their actual location. However, those sites which are described in some detail in the text and illustrated in the plates are known to be accurately pin-pointed. The distribution-map was prepared by initial plotting on maps of quarter-inch to one mile scale, and the detail was then transferred to a one million scale map. At this scale, even if the plotting is five miles out, the symbols employed are sufficiently large to cover the correct site locations.

The total number of archaeological remains is enormous. In some areas there is scarcely a square mile in which there are not at least three or four sites of varying size and date. Detailed analysis from the air will take many months and there is the work of a lifetime on the ground. The vast majority of sites are of a rectangular outline aligned on a roughly East-West axis. Many of these are comparatively modern but a large number have the characteristic Khmer format typified at Angkor. To the writer, however, the main interest lies in a compact group of irregular earthworks which appear to pre-date the much publicized works of the Khmer empire. These more primitive structures appear to have escaped notice as a group and it is with these that this paper is concerned. From the air they may be classified as follows :—

(*a*) Some two hundred small defended towns characterized by multiple, concentric earthworks and very regular almost circular construction, obviously forming a single complex.

(*b*) Four ' metropolis ' sites of similar type but with a wide gap between the inner and outer ramparts.

(*c*) Several sites located on rock outcrops probably forming part of the same group.

(*d*) A number of irregular earthworks widely varying in layout and apparently not associated with the above three groups. Sri Deva is the main site in this category.

Basic ground surveys in this area have been undertaken by de Lajonquière (3) and Seidenfaden (4) but Quaritch Wales has been the only expert European archaeologist to carry out any recent work (5). Seidenfaden's work is in the form of brief notes supplemented by a very useful map. Certain irregular earthworks are mentioned, some with brick ramparts, but in no case do finds appear to antedate the Khmer period (6). Quaritch Wales is mainly concerned with Sri Deva, a city of the Founan empire, probably founded in the first half of the 5th century. Sri Deva has an evil reputation on the ground. It appears to have an equally unfortunate effect on air-photography, since of the half dozen or so photographs taken not one is sufficiently clear for reproduction. Sri Deva is of importance in that it is the only irregular earthwork in this region for which there is a date. However, it is very considerably larger than those in the groups described below and is unique in its isolation. From the air view it stands in a class on its own. It might be added that the air view discloses some minor variations in layout from the published map.

Ban Thamen Chai, 15° 01′ N., 102° 55′ E., in Buriram Province, may be regarded as typical of the sites in group *a*. (PLATE V). It lies immediately north of the Korat—Ubon railway line, some fifty miles east of the former town, and is occupied by a modern village. Originally there appears to have been a quadruple series of concentric ramparts each about one hundred feet apart but these have been badly cut about by modern paddy fields. The whole site is roughly 800 by 960 yards in extent. It is not now possible to determine from air-photographs the locations and nature of former entrances but there are traces of one at the North—i.e. at the apex of the oval—and another at the South-East corner. The silted stream probably originally flowed through the ditches, portions of which still contain a considerable amount of water.

PLATE VIA shows an un-named site about 14° 55′ N., 103° 17′ E. midway between the towns of Buriram and Muang Surin. Originally there appears to have been a single circular earthwork some 550 feet in diameter, with a ditch, still waterlogged, now just under one hundred feet wide. Later at least two concentric ramparts were constructed traces of which can still just be seen. The large rectangular tank probably dates from late Khmer days. The whole site has been broken up by paddy fields. This is an example of difficult air appreciation ; visually or on smaller scale photographs it might well be missed and some of the gaps in the distribution map may be explained in this way.

Many sites show modification of plan, either by additions of earthworks on one side or by total enclosure within a larger rectangular structure. Unfortunately most of these sites were recorded from the air when conditions of ground haze prevailed and the resultant air-photographs cannot be produced satisfactorily. The two examples shown in PLATE VII can not, therefore, be regarded as entirely typical.

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[3] L. de Lajonquière, *Inventaire Descriptif des Monuments du Cambodge* (3 volumes, 1902-11) and *Carte Archeologique du Cambodge*, 1910.

[4] Erik Seidenfaden, *Complement a l'Inventaire Descriptif des Monuments du Cambodge*, Bulletin de l'École Française d'Extreme-Orient, Tome XXII, 1922.

[5] H. G. Quaritch Wales, *The Exploration of Sri Deva, An Ancient Indian City in Indochina*, Indian Art and Letters, vol. X, no. 2, 1936.

[6] The writer has been in correspondence with Major Seidenfaden, now living in retirement in Denmark ; but although many useful suggestions have been offered no additional evidence as to the date of these sites is forthcoming. Seidenfaden suggests a parallel to some of these sites amongst the Lawa villages in the Mehongson district of northwest Siam, but these appear somewhat different from the sir. R. le May, an authority on Siamese art, has also examined some of the air-photographs but was unable to comment on the sites.

Ban Sai, 14° 41′ N., 103° 04′ E., in Buriram Province, appears to have been a regular earthwork with a double rampart to which a more regular structure has been added (PLATE VIIa). The whole site is reminiscent of Sri Deva with its main town and traders' annexe, although Ban Sai is only some 1,100 yards across and is, of course, on a very much smaller scale. It is not possible to say from air-photographs whether the small double feature to the left of the site is the remains of a former outer earthwork surrounding the circular portion of the town or part of a defended entrance.

There are several double sites of this type ; the additions ranging from irregular ovals to the more regular pattern typified at Ban Sai.

The second site is un-named on the map and lies about a couple of miles to the South of Ban Sauk, 14° 59′ N., 103° 35′ E., in Surin Province (PLATE VIIb). Originally there appears to have been a small multiple earthwork—centre left—which has been subsequently enclosed within a triple and roughly rectangular series of ramparts. This site is more or less on the general alignment of Khmer sites and may well represent a transitional stage of early Khmer times. Raised ramps of some type emanate from the main earthwork and require investigation on the ground.

There are a number of sites of this nature in which the original series of circular earthworks or the rock outcrops described below have been incorporated into larger Khmer works. Muang Surin (PLATE VIIc), 14° 50′ N., 103° 30′ E., is another typical example. Here the shape of the original nucleus has probably been dictated by a rock outcrop.

Scattered amongst these more regular multiple earthworks are a number of fortified natural rock outcrops. These sites are exceedingly difficult to see on small scale photographs since every village in this region is under a grove of trees and unless there is a marked height to the outcrop it may well be missed. There are undoubtedly more sites than have been shown on the distribution map particularly in the Northern area.

A typical example is an un-named village immediately west of Phra Lap (Khaunkaen), 16° 29′ N., 102° 40′ E., in Khaunkaen Province (PLATE VIb). The mound is about 700 yards across and is surrounded by a moat averaging 140 feet in width with indications of a second moat at the West end. Two irregular oval enclosures have been added on the North-East side (one is mostly off the photograph illustrated). Many of the sites in this group appear to be rock outcrops forming small islands in swamp or lake areas. The town of Muang Roi-et (not illustrated) is a typical example in which an island in a lake forms the central core around which a town has expanded within a square earthwork of later date. Rock outcrops of this type would naturally be occupied at an early date and might well form the prototype for the earthworks further south.

Around the edge of the main distribution are four sites closely similar in appearance, each consisting of a circular inner rampart and moat and an outer rampart and moat set some considerable distance out. There are indications that there were originally several more of these sites but traces have been removed by agricultural activities. Two of the four share the unusual feature of straddling small rivers—an original characteristic since the ramparts have not been disturbed in any way. Unfortunately these sites are only covered by small scale photographs and the example illustrated (the only site capable of reproduction (PLATE VIIIa) lies away from the main distribution and in some ways is the least typical of the four. It is about 13° 41′ N., 102° 27′ E., some four and a half miles west of Aranya Prathet in Prachinburi Province and might be of later date than the other three. The inner earthwork is a rough oval about 1,400 by 1,200 yards with a moat varying in width from 80 to 160 feet. The outer rampart is rather irregular in its distance from the inner to which it is joined by a straight ditch 80 feet wide. There

are now no remains within the inner earthwork which can be located from the air but there are various features of interest outside. These are :—

On the East side, outside the outer moat, two rectangular earthworks, 560 by 400 feet and 900 by 300 feet, together with several smaller rectangular structures probably tanks for water storage, or possibly temples.

On the South side between inner and outer moats a probable temple site with traces of a tank. The main feature is about 250 by 150 feet in extent.

On the West a possible Stupa in an enclosure 250 feet square.

On the North a trapeze-shaped earthwork, 1,000 by 700 yards, with several smaller rectangular earthworks to the south of it.

All these features are probably Khmer or later in date suggesting a prolonged habitation of the site.

Apart from Sri Deva and one other site, the remaining group of irregular earthworks seen from the air in Eastern Siam is of an uninteresting nondescript character and can only be mentioned here. The exception is Muang Sima (PLATE VIIIb) (7), 14° 55′ N., 101° 46′ E., in Nakhaun Rachasima Province, a large irregular earthwork commanding the pass in the marginal highlands through which the Korat-Bangkok railway now runs. Quaritch Wales suggests that the abandonment of Sri Deva might possibly have been due to the opening up of a new trade route through this pass, in which case Muang Sima might be the successor of the former city and thus date from the latter part of the 6th century A.D. The site is well-known on the ground and has been mentioned by both Seidenfaden and de Lajonquière. From the air it presents a complex series of additions to the small irregular earthwork on the South (PLATE VIII), which was apparently the original nucleus. The general impression given is not unlike that of Old Prome in Burma whose final date of occupation does not appear to be much later than the 10th century A.D. Muang Sima was eventually superseded by the present city of Korat.

The difficulties of interpretation mentioned above impose certain limitations in the preparation of an adequate distribution map, and that here given must be regarded as an impression of distribution rather than as the outcome of a final detailed survey. For instance, there are undoubtedly more sites in the area south of Roi-et, but small scale cover of poor quality precludes a definite statement to this effect. The survey cover flown is being made available to the Royal Siamese Survey Department and it is to be hoped that these and other archaeological sites will appear on Siamese maps of the future. Indeed Eastern Siam deserves a special archaeological map series of its own.

It would be tempting but imprudent to speculate on the age of these sites from air photographic evidence alone. There are many unsolved problems in this region, ranging from identification of the bounds of the lost kingdom of Founan to the nature of the early Khmer cities. One thing is perfectly clear, and that is that the distribution of sites here shown corresponds exactly to the present concentrations of population and lines of communication. Then again, the distribution ties up with Quaritch Wales' ' Imperial Trade Route ', although it is not clear from his writings how he arrived at his conclusions, which seem to be pure topographical speculation. Further comment would be futile. The excavator's spade alone will provide the final answer.

NOTE.—The Editor of ANTIQUITY has asked me to add a few lines to Major Williams-Hunt's article ; and as I served as an Assistant Inspector-General of the Siameses Gendarmerie (from 1907 to 1919) just in those parts of Siam I gladly comply with his

[7] This site also goes by the name of Muang Nakhon Raxasima Kao.

request. As the space allotted me is very limited I shall do so briefly. To the names of the research workers should be added that of Major E. Aymonier who undertook the first archaeological survey of N.E. Siam in 1884 (see *Le Cambodge*, vol. III); both he and Major Lunet de Lajonquière are considered as prominent archaeologists. The Mekong is navigable all the year round, from Wiengchan in the north to Khone in the south, and large twin-screw steamboats used to ply on it. At present most of the traffic is done by motor along an excellent road skirting the left bank of the great river. With regard to Korat and Nakon Rajasima—the first name is the popular, the latter, the official one. Some of the oval and irregular shaped earthworks mentioned were photographed by the Royal Thai Air Force back in 1922. Most of the one hundred ancient sites visited by me were square in outline. It is my opinion, as far as ethnological and archaeological information goes, that the square earthworks are Khmer, that some of the oval ones are also Khmer, before the Khmer were hinduized. The pre-Khmer earthworks would be due to the Kuis, a Mon-Khmer people preceding the Khmers, while those of the most primitive form *might* be ascribed to a now vanished Melanesian people. The name of Ban Sri Thamenchai is said to be a corruption of Sri Thanon Chai, a famed buffoon at the Royal court in Ayuthia in olden days. The earthworks shown on PLATE VIa are Ban Khu Song Chan (double-moated village) while those on PLATE VIIIa are called Müang Phai.

ERIK SEIDENFADEN.

# Important New Books and Articles

*The inclusion of a book in this list does not preclude its subsequent review*

The Plough in Ancient Britain, by F. G. Payne. *Arch. Journ.* civ, 1948, 82–111. [A comprehensive and fully illustrated account by an expert].

The Stonehenge Cursus and its affinities, by J. F. S. Stone. *Ib. id.* 7–19. [Valuable fresh evidence, particularly about the Blue Stones].

The Hunting Baths at Lepcis Magna, by J. B. Ward-Perkins and others. *Archaeologia* xciii, 1949, 165–95; sold separately (15*s.*) by the Soc. of Antiquaries, Burlington House, Piccadilly, W.1, and by Bernard Quaritch, 11 Grafton St., W.1. [A fine example of salvage work, especially the plans; the Italians left no detailed record of their excavations of the Baths].

The British Section of the Ravenna Cosmography, by I. A. Richmond and O. G. S. Crawford. *Ib. id.* 1–50; sold as last (10*s.*). [A critical edition from the original manuscripts (three, here all reproduced in facsimile), with commentary and identifications, and notes on place-names by Sir Ifor Williams].

Present-day Indian Painted Pottery, by D. H. Gordon. *Journ. Indian Anthr. Inst.*, ns. ii, 1948, 9–18.

Das Grabhügelfeld von Bell im Hunsrück, by Walter Rest. *Bonner Jahrbucher*, vol. 148, 1948, 133–89. [Early La Tène chariot-burial; the careful excavation revealed other interesting details of burial-rites].

White Horses and other hill figures, by Morris Marples. Country Life Ltd., 1949. 20*s.* [A full account of them all; likely to remain the standard reference-book on the subject].

A Corpus of early Anglo-Saxon great square-headed brooches, by E. T. Leeds. Oxford, 1949. 30*s.*

The Archaeology of Palestine, by W. F. Albright. Pelican Books, 1949. 2*s* 6*d.* [A popular but authoritative account by a well-known expert].

Late Saxon and Viking Art, by T. D. Kendrick. Methuen, 1949. 32*s* 6*d.*

The Archaeology of the Cambridge Region, by Cyril Fox. Camb. U. P., 1949. 37*s* 6*d.* [Second impression, with additions, of this well-known classic, first published in 1923].

American Quilts and Coverlets, by Florence Peto. Max Parrish, London, 1949. 15*s.* [An attractive and well-illustrated account of what is curiously, but correctly, described as ' a charming native art '].

Arretinische Reliefkeramik, by Hans Dragendorff (edited, after the author's death, by Carl Watzinger). Gryphus-Verlag, Reutlingen, 1948. [A profusely illustrated text-book by the leading authority].

# Notes and News

## GOLD COAST COPIES OF 5TH–7TH CENTURY BRONZE LAMPS

In 1939 the late Captain R. P. Wild of the Gold Coast and Cheltenham showed me a photograph of two bronze lamps which he had bought on 4.7.36 from Kwabena Bonda in Tarkwa, Gold Coast Territory, and which were said to have come from old graves at Attabubu in Bron country, north of Kumasi. This photograph (PLATE, FIGS. 2 and 3) is now published with the permission of the Trustees of the British Museum, to which the lamps were presented by Captain Wild. They are in the Department of Ethnography, their accession numbers being 1936–10–22–5 and 1936–10–22–6. When I pointed out to Captain Wild that these lamps must be degenerate copies of bronze lamps which were used in the Christian east and particularly in Egypt in the 5th–7th centuries A.D., he asked me to publish them, and this would have been done before if the war had not broken out immediately afterwards.

A magnificent example of a hanging bronze lamp in the form of a bird (? dove) was found in an X-Group grave at Firka in the Wadi Halfa district of the Anglo-Egyptian Sudan. It is published in the *Journal of Egyptian Archaeology*, vol. XXI, pp. 197 ff. and in *Oxford University Excavations at Firka* by L. P. Kirwan (London, 1939), Pl. VII and p. 31, and is now on exhibit in the Ashmolean Museum, and a photograph of it (PLATE, FIG. 1) is published here with the permission of the Visitors of the Museum.

Other examples of hanging lamps from the Christian east are given in O. Wulff, *Altchristliche und Mittelalterliche Byzantinische und Italienische Bildwerke*, Teil I (Berlin 1909), Plate XXXVI, Nos. 773–4, in O. M. Dalton, *Catalogue of the Early Christian Antiquities in the British Museum* (London, 1901), Plate XXVII, No. 512, and in Josef Strzygowski, *Koptische Kunst*, Catalogue générale des antiq. Egypt. du Musée du Caire, 1904, Plate XXXIII, Nos. 9139, 9141.

In a neighbouring grave to the one in which the hanging lamp (PLATE, FIG. 1) was found at Firka, was a bronze lamp on a stand (A 14/7), which is now in the Khartoum Museum (PLATE, FIG. 4). It belongs to a class of bronze lamps on tall stands, usually described as pricket stands, which like the hanging lamps are characteristic of the Christian east and particularly of Egypt in the 5th-7th centuries A.D. It is published in the *J.E.A.*, loc. cit., Plate XXIII, fig. 8 and Kirwan, loc. cit., Plate X, 2. Other examples of these lamps are shown in Wulff, loc. cit., Plates XLVIII and L, and Dalton, loc. cit., Plate XXVI, Nos. 495–6.

If the hanging lamps from Firka and the Gold Coast are compared, it will be seen, once the rather bovine look of the latter is discounted, that, in addition to both being of similar size, they are both suspended by chains of similar length which meet in a ring. The hinges for the lid of the opening by which the Firka lamp was filled with oil, and the support on which in addition to the bird's two feet the lamp stood when taken down for cleaning and filling, are both copied unintelligently in the Gold Coast example. In fact, until the Firka lamp is seen, the projecting spike at the tail end of the Gold Coast lamp is incomprehensible. While the feathers of the bird are clearly represented on the wing of the Firka lamp, the Gold Coast example is covered with crescentic incisions which look as if the Ashanti caster thought he was representing the hair of an animal, but

FIG. 1 FIG. 2 FIG. 3 FIG. 4

TWO BRONZE LAMPS FROM THE GOLD COAST (FIGS. 2 and 3) AND THEIR PROTOTYPES FROM THE NILE VALLEY (FIGS. 1 and 4

*facing p. 38*

which are now seen to be degenerate feathers. The African copy has also lost one of the three suspensory chains.

I do not know a very close Egyptian parallel to the top part of the second Gold Coast lamp (PLATE, FIG. 3), but I shall not be surprised if it exists. There is no doubt, however, that it is copied from an early Christian 'pricket stand' lamp from Egypt, although the latter as a class have only three feet, the African example having been given an extra foot probably because African copies with only three feet did not stand firmly. The moulding on the stem and the angle of the feet, as well as the general style of the lamp, all clearly indicate its origin.

Enough has been said to show that there can be no doubt that the prototypes of these Gold Coast lamps come probably from Egypt and date from the 5th-7th centuries A.D. Examples of these lamps no doubt soon reached Firka in the northern Anglo-Egyptian Sudan in the normal course of trade. The X-Group graves at Firka are fairly firmly dated to the 5th-6th century A.D. The question is how long did it take other examples to reach the Gold Coast, to be copied by local bronze-workers, and to degenerate to the extent shown by the two lamps obtained by Captain Wild in Tarkwa. A definite answer will have to await scientific archaeological excavation in West Africa. Meanwhile I suggest that it is probable that the Egyptian originals had reached the Gold Coast before the Moslem conquest of North Africa in the 7th century; in fact I see little reason why they should not have reached West Africa within a comparatively few years of their reaching Firka, travelling by the overland route between the desert and the tropical forest, for which see p. 147 of my paper 'Archaeological Research in West Africa' in ANTIQUITY 1944; which also first mentioned the existence of these Gold Coast lamps.

The chief importance of this discovery is the light it throws on West African history, for, it suggests trade connexions with Egypt at an otherwise dark period (the 5th–7th centuries A.D.), and the existence of some local degree of civilization with ability to cast bronze by the *cire perdue* process, competently, if not very artistically. The problem of when the art of casting bronze by this process first reached West Africa is bound up with the problem of the dating of the magnificent bronze portrait heads from Ife, some of which were recently on exhibition in the British Museum. Bronze casting by the *cire-perdue* process was almost certainly used for the manufacture of small bronze figures of ancient Egyptian gods at some temple sites such as Kawa in the Anglo-Egyptian Sudan in XXVth Dynasty times (8th–7th century B.C.); and if so, the process which is still used in Darfur by Tuareg and Tama for making bracelets, etc. (see J. P. S. Daniell in *Sudan Notes and Records*, vol. XXII, pp. 273 ff.), may well have reached West Africa by the overland route before the Christian era.

K. C. Murray in his paper 'Nigerian Bronzes: work from Ife', in ANTIQUITY, 1941, p. 75, has suggested that the inspiration of the Ife industry may have come from Egypt, and have been connected with the arrival of the Yoruba from the east between 1000 and 500 B.C. In that case it probably came via the Anglo-Egyptian Sudan by the great east-west road, but life-size portrait heads in bronze are not known in the Nile Valley at that period.

Influences may well have continued to come to West Africa overland from the Anglo-Egyptian Sudan during the Meroitic period, 500 B.C. to A.D. 350, and a very likely date would have been the end of that period, when the destruction of Meroë by an army from Axum probably started the royal family of Meroë on a westward migration, but all art by then at Meröe had reached a very low ebb, and there is no evidence of the casting of bronze portrait heads in the Sudan at any time during that period. There is a hollow bronze bust of a queen, 6½ inches high, with the cartouches of Arnekhamani,

also from Kawa, published in the *British Museum Quarterly* VII (1932) 47, Plate XIXa. It dates from early 3rd century B.C. ; but it is far from being a life-size head as are those from Ife. Magnificent bronze portrait heads, however, that are life-size or larger, are characteristic of the early Roman Empire and were known in Africa. A fine head of Augustus was found at Meroë and is published in the *Liverpool Annals of Archaeology and Anthropology* IV, Plates XII-XVI, and pp. 66 ff. It was certainly not made in the Sudan, and was probably carried off from Aswan, thereby causing the only Roman military expedition to the Sudan, led by Petronius in 23 B.C. And it does not seem entirely impossible that the bronze heads of Ife may be West Africa's reaction to inspiration coming to it from the early Roman empire perhaps via Numidia or Mauretania, which had reached a considerable stage of civilization long before the Vandal invasion, while the rather miserable Gold Coast bronze copies of 5th–7th century A.D. lamps from Egypt suggest the long and gradual degeneration from an early period of brilliance inspired by some foreign influence—a process which has so frequently occurred in Africa. In any case evidence in support of the theory that bronze-casting in West Africa has had a long history is beginning to come to light. A. J. ARKELL.

## EARLY BREAD WHEAT

Some completely carbonized grains were found in the recent excavation at Geoy Tepe in Azarbaijan, and brought to England. They have been submitted to the Botanical authorities at Kew, whose report is as follows :—

'. . . the carbonized grains of wheat from an excavation at Geoy Tepe near Lake Urmia in Persia . . . are very probably from a small grained variety of the Common Bread Wheat, *Triticum aestivum* L. (*Triticum vulgare* Vill.). Some of the grains agree perfectly with small grains from samples of bread wheat cultivated in recent years in this country . . .' (2 August 1949).

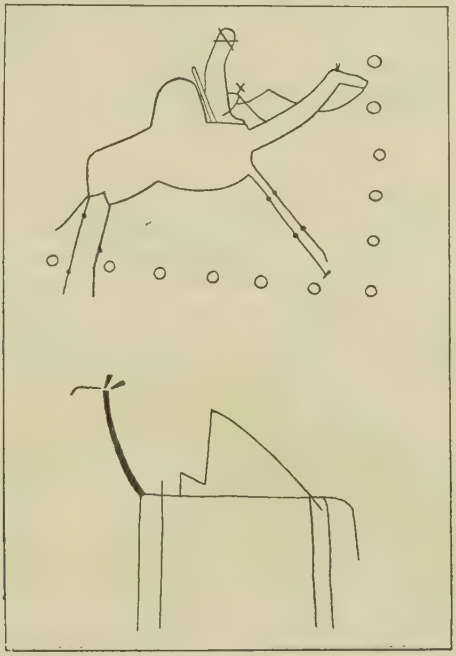
The level at which these grains were found is of the later part of what I have called the K period in the history of Azarbaijan. This was a time when grey, or black, polished pottery was in use. This polished ware has close parallels with fabrics found in south Russia, at Trialeti, and a few pieces of what are probably similar fabrics have been found elsewhere, in adjacent districts. It is decidedly improbable that the end of this period is later than 2400 B.C., for several reasons which cannot, for reasons of space, be elaborated here.

This discovery of *Triticum aestivum* L. is not the first bread wheat to have been found in the Near East in a prehistoric context. Dr Wittmack identified *Triticum vulgare* Vill. at Sesklo in Thessaly, and it has been stated that it was also known at Anau. And several experts stated that some grains found by Dr Field at Jemdet Nasr were to be described as *Triticum compactum* (or club wheat) which is a bread wheat, but this is very far from being generally accepted, since Professor Percival said that in his opinion those grains were of *Triticum turgidum* L., which is an emmer.

*Triticum compactum* was found at Mohenjodaro, according to Professor Newberry. But, apart from this, and the occurrences of bread wheat mentioned above, the wheat sown in prehistoric days in the Near East seems always to have been emmer, so far as the material at present available can tell us. It has, on occasion, been stated that the early wheat grains found at Troy were grains of *Triticum monococcum* L. (Einkorn), but, so far as I can find out, there is no proof of this statement, and the grains found in the Troy III strata were said by Dr Wittmack to be of *Triticum durum* var. Trojanum, which is an emmer. T. BURTON BROWN

## TUAREG DRAWINGS ON CRASHED BOMBER*

The accompanying drawings are copies by Mr D. Stenning and myself from the inside port engine fuselage of a crashed Boston on the landing strip at Tamanrasset, in the heart of the Hoggar mountains (22° N. 4° E.) approximately 1000 km. south of Algiers. Tamanrasset acts as a centre for the Kel Ahaggar Tuareg and for transport travelling north or south. These drawings were done in pencil and were amongst



many all over the fuselage including Arabic and Tifinagh names and inscriptions and human figures and camel riders. The aircraft crashed at Tamanrasset during the war and all the drawings have been made within the last six years. The artists were either Tuareg or from the mixed semi-negroid population of Tamanrasset, but in view of the subject matter more likely the former. This tradition of drawing camels and riders is an old one in the district going back to the Libyco-Berber rock carvings. The carvings and paintings of lions, elephants and hunters at Oued Mertoutek in the same region are undoubtedly earlier still.

Modern Tuareg artists have an interesting habit of painting in oil, drawing in pencil or scratching the outline of their subject close to or immediately on top of the rock carvings of their predecessors, in spite of the fact that there is room enough to spare on the boulder or stone slab. The subject matter is invariably a camel rider, camel or crude human figure often in conjunction with a Tifinagh inscription. The reproductions here produced are quarter actual size. As for style, significance or similarity to any other primitive

* Pictures in caves and on rocks are notoriously difficult to date ; they may often be 10,000 or 10 years old. The point of the present note is that the pictures (quite comparable with many much older examples) *can* be dated—they are post-bomber. EDITOR.

art style, past or present, I leave the drawings to speak for themselves. Some of the drawings were published in the *Daily Telegraph*, 26 Sept., 1949. H. T. Norris

## INTERNATIONAL CONGRESS, ZÜRICH

Readers of this journal will remember, from the note by Professor C. F. C. Hawkes which appeared in it in 1948 (No. 87 September, pp. 158–9), that the International Congress of Prehistoric and Protohistoric Sciences is the accepted organ of international co-operation in prehistoric and early historic archaeology and related studies, and that at the 1948 Meeting of its Permanent Council the Hungarian representatives asked for, and by unanimous vote received, the acceptance of their Government's invitation to hold the next Session of the Congress in 1949 at Budapest. Last winter, however, this invitation was withdrawn.

It has now been definitely announced that this Third Session will instead be held at Zürich, from 14 to 19 August 1950, by invitation of the Swiss Government and under the Presidency of Professor Emil Vogt. A provisional programme has already been prepared, showing that the week's Session will be followed by excursions to various parts of Switzerland,* and a fuller announcement may be looked for in our next number. The British Members of the Permanent Council are Professors Gordon Childe and Hawkes, the National Secretaries, Professor Stuart Piggott and Dr J. G. D. Clark ; the Irish, respectively Professor S. P. Ó Ríordaín and Dr Joseph Raftery.

## EARLY MAN IN N. AMERICA

In 1938 an archaeological survey of the Manitoulin District of Ontario was begun by the Division of the Great Lakes of the University of Michigan Museum of Anthropology. It has been continued each season since then, though the past ten years have been spent mainly in the vicinity of Killarney near the eastern end of the area. Here there are three sites that are contemporaneous with the raised beaches on which they lie, and there is complete chronological and industrial sequence.

Each of the two lower sites registers two successive occupations and the materials of the earlier one in each case lie in beach gravels and are rolled. The situation on the other site, George Lake 1, is more complex. The elevation above Lake Huron is about 300 feet, and cultural materials lie on the surface of the beach and to a depth of 15 inches. Most of the artifacts are rolled, some extremely so. The site is primarily a workshop, owing its location mainly to a small area of white uniformly textured quartzite in the barren rocky hills of the southern escarpment of the Laurentian highlands. All implements are of that material. The distinctive type is a large flaked semi-lunar blade ranging in length from five to eight inches. The most common implement is a large ovate blade, coarsely flaked in most cases, and thick. Only two hafted points have been found, one of which is a small side-notched projectile point. The other is of Yuma type, with the tang nearly as wide as the blade. Some 200 implements and about thirty thousand flakes have been collected.

George Lake 1 is about thirty acres in extent, with the main concentration of cultural material between 280 and 300 feet above Lake Huron, around the north end of a small lake half a mile long. Much material however is found at lower levels down to the shore of the small lake, at 209 feet elevation, and a few flakes have been dredged from the lake itself near the shore. This material was brought to its position either by surface

* Basel, the Jura, and Neuchâtel; St. Gallen and Wildkirchli ; Graubünden and the Valais.

drainage, or the following of the receding water-level by the inhabitants of the site, or perhaps a combination of both. Excavations so far have been confined to a well-formed breach of gravel about 500 feet long. George Lake 1 is non-ceramic, and bone of any kind is absent (see ' An Early Industry on a Raised Beach, near Killarney, Ontario '. By E. F. Greenman, *American Antiquity*, VIII, No. 3 (1943) : 260–65). The intermediate site, Chikanising Creek 1, has an elevation above Lake Huron of 56 feet, and is also non-ceramic. The lowest site, Killarney Bay 1, is at 28 feet elevation, and has pottery, copper, ground stone including bored slate bracers and gorgets, flint projectile points and scrapers, and burial mounds of earth. The earlier occupation at the intermediate site, at depth in the beach gravels, appears to be more closely related to George Lake 1 than to Killarney Bay 1. There are halves of badly rolled semi-lunar blades and tanged points of quartzite, the latter again recalling Yuma types.

The dating of these sites involves the post-Algonquin changes in Great Lakes water-levels through isostasy and drainage. Lake Algonquin was the last of nine glacial Great Lakes formed by the retreat of the ice during the decline of the Wisconsin glacier some 25,000 to 35,000 years ago, and the beach of George Lake 1 was built as the waters receded from the Lake Algonquin shore due to the tilting upwards of the Great Lakes basins north of Saginaw Bay. The actual figures in years are approximations based upon the elevations of the three sites above present lake level, that is, upon the extent of upward deformation of the land since they were functional beaches. Nipissing Great Lakes, the stage immediately preceding the present, came to an end with the abandonment of the outlet into the Ottawa river valley at North Bay, Ontario, and the return of the discharge of the upper lake basins to Port Huron, Michigan. The increased volume of water through Niagara then began the cutting of the Upper Great Gorge of that River, a process which is estimated to have taken 4000 years (See Late Quaternary Upwarpings of Northeastern North America, by Ernst Antevs, *The Journal of Geology*, XLVII, No. 7 (1939) : 720). During that period tilting deformed the basin of Lake Huron to an extent producing an elevation of 85 feet at Killarney. It accordingly took about 1300 years to produce the 28 feet of elevation of the Killarney Bay site 1, and about 2600 years for the 56 feet of elevation of Chikanasing Creek 1. The rate of tilt since Nipissing Great Lakes has been about two feet per century. If this is applied to the 300 feet elevation of George Lake 1, a lapse of about 15,000 years is indicated since the formation of that beach and the deposition of cultural materials on and beneath its surface. However, the subsidence of the water-plane from the Lake Algonquin shore was not, as was formerly believed, one continuous movement in the same direction (see in this connexion, ' The Submerged Valley through Mackinac Straits ', by George M. Stanley, *The Journal of Geology*, XLVI, No. 7 (1938) : 972). There is, further, no certainty that the post-Nipissing rate of tilt was the same as that before Nipissing Great Lakes. George Lake 1 may be older or more recent than the 15,000 years antiquity suggested by the data. Its closest cultural connexions, aside from the possibility of Yuma, are with three sites at North Cape, Norway, on raised marine beaches with elevations between 24 and 30 metres, the Nordskog, Kongshofmark and Hjemmeluft sites (*Stone Age Finds in Finmark*, by A. Nummedal, Instituttet for Sammenlignende Kulturforskning, Oslo, 1929).

Complete excavation of all three sites will take at least six more seasons. Work on George Lake 1 is necessarily slow because of the inaccessibility of the site, and the difficulties of making a contour map and grid plan in thick bush. The work is done by students from various universities, who receive instruction and credit in the University of Michigan in the Department of Anthropology. E. F. GREENMAN

Ann Arbor, Michigan, *September* 27, 1949.

## THE DATE OF CAMLANN

King Arthur's last battle is recorded tersely in the *Annales Cambriae* : ' The action of Camlann in which Arthur and Medraut fell together. And mortality in Britain and in Ireland (1) '. This is usually dated *c.* 537–9. But the same authority places the battle of Mount Badon (*Mons Badonicus*) just 21 years earlier, so, if the two entries hang together, and Badon (as is frequently argued) should be dated *c.* 500, then the date implied for Camlann would be somewhere near 520.

In this connexion, the second entence quoted is worth noting. It records a pestilence affecting both Britain and Ireland. This can hardly be the famous ' Yellow Plague ' of *c.* 549, which appears in its proper place a decade later. This led to search in the Irish Annalists—at this period much more detailed than any Welsh or English chronicle—and discovery of the following entries in the *Annales Tigernachi* (2) :—

' K. VI (i.e. New Year's Day on a Friday. This would point to 538. But we should probably read .v. (537) which would fit the reference to the death of Pope Silverius). P(er)dit(i)on panis. Silveri(us) Pap(a) Ro(m)an(us) r(egnavit) an(no) .I. m(ens)ib(us) .v. d(iebus) .XI. q(u)i (con)fesu(r)is obuit.

Manchan Maetha cecidit.

Kl. VII (read VI). Nat(iv)itas G(r)igorii Papa. Nem ep (iscopus) obiit.

Vigil(ius) Pap(a) nat(i)one Ro(m)an(us) r(egnavit) an(nus) .XVIII. m(en)sib(us) .VI. d(iebus) .XV., q(u)i Siraciusis defunct(us) via Salaria sepult(us) (est) ut Beda boath. K. I. (New Year falls on Sunday) *Mortalitas magna* q(uae) Blefed d(icitur) in q(u)a MoBi clairi (n)each c(ui) no(men) Berchan, Brecano, p(r)o(f)eta p(er)iit '.

The year of the ' mortality called Blefed ', coming one year after the birth of Pope Gregory, and two years after the death of Pope Silverius, clearly represents A.D. 539 or 540. The obit of St. MoBi appears in the Ulster Annals under 544, but this obviously belongs with several nearby entries which are post-dated several years. The *Chronicon Scotorum* gives the date as 541, but it dates the Yellow Plague 551, at least two years late. There is, therefore, no reason whatever to question the correctness of Tigernach's date for the *Blefed*.

No other pestilence is mentioned between 500 and 539. The Blefed must be the pestilence mentioned by the *Annales Cambriae* along with Camlann. This would point to Camlann being fought in 539, Badon in 518. There is, however, a weak link. We cannot be sure that the compiler of the *Annales* did not blunder in assembling his entries from disparate sources.

P. K. JOHNSTONE.

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[1] An(no) XCIII. In *Y Cymmrodor*, IX, 141.

[2] ed. Whitley in Stokes, *Revue Celtique*, 17 (1896), pp. 136–7.

# Reviews

LA MOSQUÉE OMAYYADE DE MÉDINE; ÉTUDE SUR LES ORIGINES ARCHITECTURALES DE LA MOSQUÉE ET DE LA BASILIQUE. *By* J. SAUVAGET. *Publ. for the Institut français de Damas by Vanoest, les Editions d'Art et d'Histoire, 3 et 5 rue du Petit Pont, Paris, 1947, quarto, 199 pp., 6 plates and 37 figures (price not stated).*

With this volume Prof. Sauvaget adds an important contribution to his studies on Umayyad monuments. It reproduces, without alteration, a course of lectures delivered at the *Ecole des Hautes Etudes* and falls into two parts: (*a*) an attempt at the reconstruction of the Umayyad mosque of Medina and (*b*) the wider problem of the architectural origins of the mosque in general and of its model—the basilica.

The first mosque of Islam—the house of the Prophet Muhammad at Medina—has always enjoyed a privileged position. It was enlarged by the orthodox caliphs, 'Umar and 'U*th*mān, and completely rebuilt at the beginning of the 8th century A.D. by the Umayyad caliph Walīd ibn 'Abdulmalik. The edifice has suffered so many alterations, additions and restorations in later years, that we must rely almost exclusively on literary sources in any attempt to reconstruct it. This Sauvaget accomplishes with consummate skill. He proceeds first to analyse the texts listed by Prof. K. A. C. Creswell in the first volume of his Early Muslim Architecture (Oxford, 1932) and to check their reliability. As is often the case with Arabic texts, copied with more or less accuracy by generation after generation of compilers, only a limited number of original contributions and eye-witness accounts emerges. Sauvaget singles Samhūdī out for special attention. This author of a detailed history of Medina died in A.D. 1506 and would not, at first glance, qualify as an authority for the reconstruction of an 8th century mosque; but the value of this work remains unequalled. It was written not only to coincide with an important restoration of the monument, but was intended to call the attention of Samhūdī's contemporaries to the faults in earlier restorations. Samhūdī collected his material during a sojourn of forty years in Medina. His book represents the fruits of minute investigation and careful observation. By comparing Samhūdī's detailed and conscientious description with that of earlier sources, Sauvaget is able to conclude that the plan of the Umayyad mosque had survived without major alterations until 1481; but that the old decorations had completely disappeared in the fire of 1256. This enables him to draw up an orthogonal plan of the mosque.

Sauvaget further distinguishes two main types among the Umayyad mosques known to us:

(*a*) That represented by the older monuments, Basra A.D. 655, Kufa A.D. 670, consisting of a flat-roofed edifice supported by equidistant supports, and adjoining courtyard flanked by porticoes.

(*b*) The 'Syrian type', mosque distinguished by an elevated central aisle, roofs resting on colonnades, adjoining courtyard flanked by porticoes of varying depth as well as by one or more minarets.

The mosque of Medina cannot, conveniently, be placed in either of these categories. The porticoes are not symmetrical. The equidistant supports in the main body of the edifice resemble those of Basra, but the cupola in front of the mihrab and the sumptuously decorated transept remind us of the Syrian style. According to Sauvaget, the mosque of Medina represents a compromise. Walīd intended to preserve the main

features of the mosque in which the Prophet had performed his devotions; but the central aisle, the niche-shaped mihrab and the minarets were Umayyad innovations. The importance given to the central aisle for the first time at Medina was to become the essential feature of the Syrian mosque.

The second half of Sauvaget's book is devoted to the origin of the mosque in general. The plans of early mosques were based on those of basilicas. So were, Sauvaget points out, the audience halls of the Umayyad palaces (M*sh*atta, *Kh*irbet Minye, etc. . . .). Few of these halls have survived destruction, as they were normally placed on the first floor of buildings which have crumbled.

With the aid of a great number of historical and literary texts, Sauvaget illustrates the functions of the mosque and the ceremonies performed in it. 'The mosque is not so much', he says, 'an autonomous edifice for the cult as *an annex to the palace of the caliph or to the residence of the governor*, in a provincial town'. Following a tradition established by Muhammad himself, it was reserved for all purposes for which the private reception rooms at the palace were unsuitable. 'We must, therefore', he concludes, 'look for the key to the architectural lay-out of the mosque not among liturgical but among ceremonial, governmental institutions'. He would have us go further and suggests that, from the architectural point of view, the difference between mosque and audience hall lies only in the size of the terminal exedra, large and open as in the apse, or reduced to the narrow dimensions of the mihrab. This leads him to look for the model of the mosque, not, as had been done hitherto, in the domain of religious architecture, but among palatine monuments. A parallel development seems to have taken place in Christian architecture; the basilica, like the mosque, was inspired by the plan of the audience chamber. A concise statement illustrating the truth of this argument, Sauvaget finds in the inscription placed on the triumphal arch of St. Peter's in Rome by Constantine.

> Quod duce te mundus surrexit in astra triumphans,
> hanc Constantinus victor tibi condidit aulam.

Next to the inscription is an image of the Emperor holding a model of the church. *Aula* here, Sauvaget affirms, has the narrowest meaning of 'sovereign court', 'palace'.

Some may find it difficult to accept all the arguments so eloquently presented in the second half of the book, but the first, dealing most skilfully with the reconstruction of the 8th century mosque, could not be improved upon in the absence of scientific excavations. It is hoped that wider circles of readers than those particularly interested in Muslim art and archaeology will find matter for thought in Prof. Sauvaget's stimulating and absorbing book.

D. S. Rice.

MEN OF TASTE. *By* Martin S. Briggs. *pp.* viii, 232; *index, coloured frontispiece and 52 photogravure illustrations. Batsford*, 1947. 15*s net.*

In his title 'Men of Taste' Mr Briggs refers to the patrons of art through the ages and he sets out to trace the influence of these 'supermen', as he calls them, upon the development of art and upon the lives of the working artists whom they employed. To develop such a theme fully, even in a limited field, would be a difficult task and no very systematic treatment can be expected in a book that ranges from Rameses II to John Ruskin and William Morris. Mr Briggs is mainly interested in architecure and most of his admirable illustrations are of architectural subjects. The remainder are mostly reproductions of sculptural or pictorial portraits of the subjects of his chapters, such as the fine portrait of Cardinal Richelieu by Philippe de Champaigne, the well-known bust of Pericles or Sir Thomas Lawrence's George IV. The frontispiece is a fine coloured

reproduction of the painting of Francis I and Margarete de Navarre by R. P. Bonington now in the Wallace Collection. The chapters on the worthies that Mr Briggs selects for treatment are discursive and anecdotal accounts of the men and their activities as patrons of artists and architects. Mr Briggs might have been wiser to start his survey at a later period. In the earlier chapters on Rameses, Pericles and Hadrian suitable material for his method is scanty and his summary statements on conditions in the ancient world are sometimes misleading. In the later periods he finds richer veins and offers much that is lively and interesting, such as the entry in the diary of John Evelyn for January 10, 1662—' Being called into his Majesty's closet when Mr Cooper, the rare limner, was crayoning of the King's face and head, to make the stamps for the new milled money now contriving, I had the honour to hold the candle whilst it was doing, he choosing the night and candlelight for the better finding out the shadows. During this his Majesty discoursed with me on several things relating to painting and graving '.

' Men of Taste ', including the elegant jacket designed by Felix Kelly, is itself a tasteful production and will give pleasure and entertainment to amateurs of architecture and the fine arts. G.F.F.

STATUES ON COINS. *By* PHYLLIS WILLIAMS LEHMANN. *pp.* x, 72, *with* 51 *photographic plates, illustrations in the text and indexes ; H. Bittner & Co. New York,* 1947. $3.50.

Students of Greek sculpture have often turned to coins for aid in the solution of their problems and specific coin types have been related to actual statues. Whereas, however, it is agreed that many Hellenistic and Roman coins reproduce known statues the view of Percy Gardner that this practice was unknown to the die-cutter of classical times has been accepted with few dissentients. In this thorough and scholarly work Miss Lehmann takes up the problem again, and, by a study of the types of selected coins of cities of Southern Italy and Sicily, endeavours to prove, that these coin types ' reproduce famous lost statues and constitute focal points about which numerous statues and statuettes may be grouped '.

All the coins considered were struck between 480 and 323 B.C. and Miss Lehmann finds within that period, among those coin types ' which, from a purely visual standpoint, give the impression of reproducing full length statues ', ten examples which are also unique. She argues that ' if a statue of unknown provenance is iconographically and stylistically identical with a coin type, and that type is unique, struck at a specific time by one, and only one, city, it is logical to assume that statue and coin type alike depend upon a common archetype. Such a coin type not only constitutes a reproduction of a given statue ; by virtue of its own unquestionable provenance, it affords the means of attributing closely related sculptures to a given region, hence, of enlarging the number of works which may reasonably be considered products of that region '.

It may be doubted whether the logic is entirely watertight, but when Miss Lehmann goes on to the next step, ' to examine whatever Greek and Roman sculptures were available in published form, from small bronzes and terracottas to monumental sculptures, to see whether any figures iconographically related to those numismatic types could be found ', some interesting conclusions emerge. Thus the celebrated bronze statue found in a house on the Via dell' Abondanza in Pompeii in 1925 and variously explained as a victorious young athlete pouring a libation, a lychnophoros adapted from such an earlier type, or a Ganymede, is linked with the standing figure on the reverse of the didrachm issued by Selinus between 466 and 409 B.C. On stylistic ground the Pompeii youth has been vary variously attributed ' now to Pheidias or his circle, now

to Alkamenes, now to an Argive sphere or again, a neo-classical Athenian of the first century B.C.' Miss Lehmann examines and compares the figures in detail and concludes that 'given this remarkable degree of typological and stylistic similarity, it is reasonable to assume that statue and coin type alike reflect a common archetype—the original cult statue of the river god Hypsas . . . Judging from the didrachm the archetype must have been made about 450 B.C.'

By similar arguments the famous Idolino is brought into relation with the figure on the reverse of the stater of Pandosia in Bruttium issued at a date somewhere around 430 B.C. Both statue and coin type would 'reproduce a lost statue of the river god Krathis, whose waters were famous in antiquity for their magical powers'.

Still more conjectural is the attempt to associate the bronze statuette from Herculaneum, originally identified as Seleucos Nikator and now generally accepted as Demetrios Poliorketes, with the figure of the river god Krimisos on the obverse of the tetradrachm issued by Segesta in the latter part of the fifth century B.C. The unusual pose of the figure, with one foot raised and resting on a rock, is similar to that of the coin type but in reverse. Apart from this general resemblance there is little reason to regard this statuette as a remote descendant of a lost cult image of a river god that once stood in Segesta. Although there is nothing inherently improbable in the representation of Demetrios in the guise of a young hunter-river god, the existence of such a cult image is a conjecture, for which the author can find little evidence and for which she claims no more than probability in this instance.

Miss Lehmann also discusses Apollo figures in relation to coins of Metapontum and seated and standing figures of Herakles with reference to coins of Croton, Thermae Himerenses and Herakleia, and on Plate XV reproduces fourteen further coins, whose types are definitely suggestive of sculptural archetypes. Miss Lehmann's conclusions must await the verdict of specialists but her excellent monograph opens up some very interesting lines of enquiry. It is admirably produced and illustrated. G.F.F.

PREHISTORIC CERAMIC STYLES OF LOWLAND SOUTH AMERICA, THEIR DISTRIBUTION AND HISTORY. *By* George D. Howard. *pp.* 95. 15 *figs.*, 15 *pls. Yale University Publications in Anthropology, no.* 37. *Yale University Press* (*London: Geoffrey Cumberlege*), 1947. 8*s* 6*d.*

The appearance of this paper raised hopes that new data had been found which would at last link up the scattered archaeological discoveries of South America east of the Andes. It is a praiseworthy attempt at synthesis, and some rather inaccessible material has been gathered and well illustrated, but it cannot be said that any very notable advance in knowledge has been made. It is useful to have illustrations and descriptions of most of the known Lowland South American pottery styles set out in one small volume, but it must be realized that there are obvious omissions. The El Cerrillo style of the Parana River is very inadequately illustrated, in that the modelled decorations, which are a prominent feature of it, are barely mentioned, though they have been figured recently by Aparicio, and over thirty years ago by Joyce. A peculiar style of burial urn from Pará, figured by Joyce, is not mentioned at all, although it must represent something completely different from the neighbouring site of Marajó.

The results are analysed in the excessively mechanical manner of which the Yale School has already published various examples. A prominent feature of this is the making of long lists of traits of very unequal value for comparison, some of which are for all practical purposes repetitions of the same thing in different words, for example it is hardly significant to mention monochrome painting in addition to red paint as a

' diagnostic trait ' of a particular ' complex '. The latter term, which is defined as a characteristic grouping of traits within a style, lends itself to similar misuse. Thus, to say that the Napo Anthropomorphic Complex occurs in the Maracá style as well as in a number of others (bottom of page 56) is to use a form of words to disguise obvious differences. The acme of meaningless verbiage seems to be reached in the definition of the Mound Hernmark Painted Complex, whose ' diagnostic traits ' include ' plain or painted, monochrome or polychrome painting ' (footnote page 70). The impression given by the work in general is that such sound conclusions as the sketchy evidence allows have been reached in spite of the method.

It is gratifying to English readers that the work of T. A. Joyce, published as long ago as 1912, can still be quoted as essentially sound, but it appears that it was even better than the author appreciates. He says that it is evident that Joyce's Southern Complex actually include two unrelated styles, without realising that Joyce himself said that ' the peculiar style of pottery in the neighbourhood of the Parana ', meaning what is now called the El Cerrillo style, implied just such a division.

A paper dealing with the distribution of styles deserves a better map ; it should not have been difficult to get an outline map whose graticule was not so close as to make it look like coarse wire gauze. Finally, the expression ' biomorphic face ' creeps in twice on page 65. Where outside the Department of Anthropology at Yale do they have non-biomorphic faces ?

G. H. S. BUSHNELL.

THE ANCIENT MAYA. *By* S. G. MORLEY. *pp* XXXII+520, 95 *pls.*, 57 *figs.*, 12 *tables.*

Anything written about the Maya by Dr Morley will be read with attention and pleasure by students of American archaeology, and this book, in which he sums up a lifetime of experience, will refresh their memories on many points and enlighten them on some. It contains a good account of most sides of Maya life and work, presented in a readable form. It is particularly useful to have Maya history set out, with convenient tables, in terms of the Goodman-Martinez-Thompson correlation of dates with the Gregorian calendar. Perhaps the best part of the book is the emphasis laid on the continuity of many features of Maya life. It is most illuminating to read Dr Morley's account of Maya agriculture, showing how little it has changed in method from the earliest times to the present, and of the part it probably played in the abandonment of the Old Empire cities. A pleasing human touch is given by the story of the Xiu family, simple peasant farmers directly descended from the New Empire rulers of the great city of Uxmal, with an intermediate stage when they were ennobled by the Spaniards. It is good to have a lucid account of the relationship between the Old and New Empires. This was not, as is still commonly supposed, a wholesale migration from the old cities of the south to virgin territory in northern Yucatan, but rather a more intensive development of a region which had been occupied from very early times, after the abandonment of the southern area.

In spite of these and other useful features, the book is more for popular consumption than for the specialist. Much important recent work bearing on the origin of Maya culture, for instance the Smithsonian expeditions to Tres Zapotes and other sites in Vera Cruz, is dismissed with little more than a statement that the author does not agree with the conclusions. He pays lip service to the importance of pottery in archaeology, but the unbalanced nature of his choice of illustrations renders much of his necessarily brief account of Maya pottery of little value. Apart from some pictorial scenes from Old Empire painted vessels, only three plates and a text figure are devoted to pottery, and these are all taken up by New Empire types, comprising four examples of Plumbate

Ware, three of Fine Orange, four of Yucatan slate and four other objects, an altogether disproportionate distribution. A better idea of the older types of pottery may be derived from a recent popular article by Dr Morley in the periodical *Life !*

Dr Morley's rather exclusive preoccupation with the Maya leads him to ascribe, tentatively it is true, comparatively remote dates to their early stages. ' A thousand years or more ' B.C. for the introduction of agriculture to the lowland Maya area seems an over-long time before the estimate of about A.D. 1 which is widely accepted for its introduction into the Valley of Mexico. Perhaps the truth lies between the two. He discusses and rejects the recent conclusions of botanists who believe that maize was originally cultivated in South America, and prefers to stick to the ' teosinte ' theory of its origin, with Guatemala as the place. The last word has not been said on this subject, and the possibility remains that agriculture may have arisen in more than one part of America, and that maize was not the first plant in every case.

Some minor errors have been noticed. An interval between two attempts at conquest is not an interregnum (p. 103). The fraction given as 53,059/100,000 on p. 306 should read 3,059/100,000. The use of the word ' monastery ' on p. 348 can not have been intended, since there is no evidence that the buildings called monasteries by the Spaniards were used as such by the Maya. On p. 388 it is stated that calcite temper practically replaces sherd temper in utility ware in Chicanel times, whereas on p. 389 the temper of such ware is said to remain the same throughout Mamom and Chicanel times and later, and to be sherd. On p. 451, it is implied that the finest Peruvian textiles were those of Nazca and that they were of vicuña wool ; it has long been known that most of the fine textiles formerly ascribed to Nazca came from Paracas, and that wool embroidery (not necessarily vicuña) on a cotton foundation is commoner than wool weaving throughout.

The production of the book is, on the whole, pleasing and a topical touch is given by the chapter numbers, which appear on each page in the Maya bar-and-dot notation, as well as by the date of publication, 1946, which is shown similarly at the beginning. The text figures and plans are excellent, but many of the very numerous half-tone plates have suffered much in reproduction and the detail is woolly and blurred. In particular, the air photograph of Coba, plate 38(b) is worthless and one suspects that the original was none too clear. Plate 64, showing reconstructions of four steps in making a stela by a modern artist, does not inspire confidence, and the drawing showing its erection appears mechanically impossible.

The final appraisal of the Maya civilization leads Dr Morley to ' acclaim the ancient Maya, without fear of successful contradiction, as the most brilliant aboriginal people on this planet '. This is a large claim and will doubtless be hotly contested by others who have their pet aboriginal races, but it is a measure of the author's enthusiasm, and the reader will enjoy the opportunity of judging its merits for himself.

G. H. S. BUSHNELL.

THE ATTALIDS OF PERGAMON. *By* ESTHER V. HANSEN. *pp.* XXXVI, 464 : *index, bibliography and map* : Vol. XXIX of Cornell Studies in Classical Philology. *Cornell University Press, Ithaca, New York,* 1947. $4.50.

The little kingdom of Pergamon in the valley of the Caicus in the north of Asia Minor lasted for less than two hundred years from the time when it emerged under Philetaerus at the beginning of the third century B.C. until it was bequeathed to Rome by the testament of Attalus III in 133 B.C., to form a few years later, after the defeat of the pretender Aristonicus, a part of the Roman province of Asia. During this short period

it played a notable part in the general history of its time. Attalus I did good service to the Greek cause by his victories over the Gauls, which earned him the title of ' Soter '. By their military successes and their shrewd diplomacy the adroit monarchs of Pergamon secured their position against the more powerful successor states. Above all by their discernment in recognizing the power of Rome they enlarged their boundaries and built up their prosperity. It has been plausibly suggested that the Roman campaign against Philip was actually prompted by Attalus, who skilfully exaggerated the importance of a pact between Philip and Antiochus and played upon Roman fears of an imaginary ' Seleucid peril '. However this may be, the contribution of Pergamon to the Roman successes in her eastern campaigns secured for her favourable treatment in the final settlements. Her position thus assured, Pergamon developed into an active centre of Hellenism. The ' Attalicis conditionibus ' of Horace recalls the proverbial wealth of her kings, which they used not only in liberal subsidies to Greek cities but also in the adornment of their capital and a generous patronage of the arts, which drew artists and craftsmen to the city from many quarters. It was under Eumenes II that the city was laid out in the magnificent series of rising terraces, adorned with noble buildings, that made it one of the finest examples of civic planning to be found in the ancient world. At successive levels were to be seen the vast marble altar of Zeus with its colonnaded sides, the famous library and, crowning the summit, the palace of the king. The grandeur of the whole design foreshadows the splendours of Imperial Rome, and the great altar of Zeus Soter, adorned with a sculptured frieze representing the battle of the gods and giants, a subject which symbolizes the greatest service to Hellenism of the ruling house in the defeat of the Gauls, was among the most notable monuments of antiquity. Its fame is attested by the words in the *Book of Revelations* addressed to the angel of the church of Pergamos, ' I know where thou dwellest, even where Satan's seat is ' ; and the obscure Ampelius in the 2nd or 3rd century of our era noted this altar and its impressive sculpture. Scholars, mathematicians and philosophers were drawn to the library of Pergamon, second only to that of Alexandria. Attalus III, the last of the dynasty, an obscure and enigmatical figure, appears to have retired to his palace to pursue botanical and medical researches and a distorted tradition lingers into the Middle Ages ascribing to him the invention of chess. Professor Hansen cites Chaucer's words in ' The Book of the Duchess '

> Ful craftier to pley she was
> Than Athalus, that made the game
> First of the ches, so was hys name.

References to Pergamon crop up in many quarters, for it has a relevance in several fields, in Roman history, in art, architecture and town-planning, and in the organization of city government and the spread of Hellenism in the East.

In this volume Professor Hansen presents a careful and systematic study of every aspect of Pergamene history. Her narrative is closely documented from a large specialized literature on widely separated themes. After a survey of the factual history of the dynasty a number of special topics are handled, such as the organization of the kingdom, the government of the capital and its sources of revenue and coinage. Topographical and archaeological subjects are treated in chapters on the building activities of the Attalids and the Art of Pergamon, and an appendix contains a list of the coin types of the Pergamene kingdom. Professor Hansen writes for specialists and assumes that they have access to illustrations of the works which she describes. In view of present difficulties in obtaining books a companion volume of plates to illustrate these topics would be very helpful to students.

In her chapter on the Attalid patronage of learning Professor Hansen deals with a number of scholars and literati whose works are for the most part known to us only in fragments or by repute. They include Antigonus of Carystus, sculptor and art critic, an ultimate source for many passages in the books on art in Pliny's Natural History, Crates, literary critic and grammarian and probably head of the Pergamene library, the most important scholar of the reign of Eumenes II. Apollonius, the mathematician, dedicated to Attalus I a portion of his ' Conic Sections ', the work which gained for its author the title of ' the great geometer '. The only complete works extant of any Pergamene author are the *Theriaca* and the *Alexipharmaca* of Nicander. They reveal Nicander as a metaphrastes, versifying material drawn from various sources to form a poem of didactic character typical of Alexandrine literature. Quintilian's reference to Virgil as a follower of Nicander has led to much speculation on the extent to which Virgil may have imitated the lost works of Nicander, particularly his *Georgica* and a poem on bee-keeping. Professor Hansen dismisses this claim, but the description of a serpent in the third Georgic closely imitates an extant passage of the *Theriaca* and it is not improbable that the fourth Georgic contains echoes of the lost *Melissourgica*. The influence of another of Nicander's works, the *Heteroioumena*, upon Ovid's Metamorphoses is generally admitted so that Nicander, in spite of his pedestrian qualities, is not an altogether negligible figure in the history of Letters.

The final chapter is concerned with the cults and religious organizations for which evidence can be found in the coins, inscriptions and architectural remains of Pergamon, and with the development of the cult of the Attalids, culminating in the claim of Attalus III to be regarded as the incarnation of a god.

In gathering into a single volume the various strands of Pergamene history Professor Hansen has performed a service for which classical scholars will be grateful

G. F. Forsey.

LES MONUMENTS FUNERAIRES D'ARLON ROMAIN (extrait des Annales de l'Institut archéologique du Luxembourg, LXXVI, 1945). *By* M. E. Mariën. *Reprinted, Brussels*, 157 pp., 54 *figures*.

This is a careful study of the Roman monumental and sculptured fragments from Arlon in Luxembourg, including the material found in 1936 and 1937, illustrated by the author's drawings and restorations. The remains are classified according to the type of monument from which they come, with full use of the comparative material from other sites to place them in their setting.

While Igel and Neumagen have been fully treated, we must await further individual studies of sites, as M. Mariën has recently done for Buzenol, and now for Arlon, before any final settlement of the problem of the origin of the lofty monumental pillared tombs of the Igel type. Meanwhile M. Mariën has summarized the evidence for this type from Igel, Neumagen and Buzenol, while leaving the group from various Moselle sites for the treatment projected by the Römisch-germanische Kommission, and then done a detailed classification of four types exemplified at Arlon.

In subsequent chapters Mariën discusses the simpler tomb, oblong in ground-plan, with decorated sides and back, which developed out of the early military tombstone-slab, secondly the local development of the altar-tomb with its affinities with Pompeii, and finally the very simple Gaulish tombs with the main block hollowed out at the top to make a recess for the ashes, and coped by a capital often half-rounded or triangular, to simulate a house-roof.

He concludes with a valuable chapter on the art of the Arlon monuments and traces

its development from the Claudian style, strongly influenced by the official and military style of the Rhineland, to the fully developed civilian tradition of the later second and first half of the 3rd century. The local school does not attain the artistic inspiration of the Neumagen sculptures, but does reveal what could be achieved by local craftsmen working for the merchants and landholders of Orolaunum (Arlon), a prosperous town at the intersection of the roads from Rheims to Treves, and from Metz to Tongres. The reliefs are useful in giving scenes of daily life, of merchants selling cloth, and tenants paying rent, of carriages and country carts, and humble tillage of the fields. Other scenes portray a dinner-party, or perhaps the funeral banquet, but the author reserves for future treatment his main discussion of the symbolism of these monuments. They also yield material for provincial fashions, as do the tombstones at York, to show how far imperial styles of hair-dressing were adopted in these distant provinces, or how the men favoured Gallic forms of dress.

The student both of Roman funeral monuments and of art in the northwest provinces should profit by this and other works promised from the pen of M. Mariën.

R. P. WRIGHT.

CASTE IN INDIA. *By* J. H. HUTTON. *Cambridge University Press*, 1946, *pp.* 279 *and map.* 18*s.*

On reading a book about caste in India, the majority of those who have some knowledge of the subject, and many of those who have not, will judge that some part of this complex problem has received inadequate consideration and feel impelled to add their contribution ; hence the 5000 published works on this subject which the author mentions in his foreword. India is so large, the ramifications of caste so considerable, that it would be hard to say that any one of these works was unjustified. Professor Hutton with a wide experience of the literature of the subject feels that, for the student of anthropology, there is a need for a book on this subject which combines compactness with a good comprehensive survey.

Anyone wishing to be enlightened on the subject of caste in India will look for information about its structure, function, origin and future, how it affects the lives of the inhabitants of India and how it is influenced by the increasing impact of Western material progress. Judged by these standards Prof. Hutton has made a valuable contribution which is clear, readable and gives a satisfying, though in view of what has been said probably not final, exposition of the caste system in India.

In four chapters the racial background is presented with a succinct completeness which might so easily have been a dreary catalogue, but is in fact extremely readable. A few points may however be noted. The indifference of the Koragas of Coorg to caste and the beneficial effect on both the people as individuals and Coorg as a social and economic area is perhaps not so strongly stressed as it should have been. The bulk of the Punjabi Jats, especially from Rohtak and Hissar, and the Jat Sikhs are so totally dissimilar facially, mentally and temperamentally that Sikhism cannot account for the difference ; they must be of different racial stock.

The reliability of the statistics of caste and religion is in some instances and in some districts often questioned. It is contended that Hindu politicians take steps to ensure the inclusion in the census returns as Hindus, of tribal peoples who are not Hindus, do not wish to become Hindus and who are increasingly fixed in their determination not to be submerged as outcasts on the fringes of Hindu society but to retain their independence, individuality and dignity. This is particularly noticeable among the Kols and Hos of Kolhan in Southern Bihar.

In its chapter on structure this book shows that caste is far from simple and clear cut, and those on strictures, sanctions and functions show caste as it affects the lives of millions of caste Hindus. One of the features of the caste system that has always troubled Western observers is the idea that an individual born an outcast must remain an outcast all his life and cannot, at any rate in his own country as a member of the Hindu community ever improve his status. Although Prof. Hutton says: 'It is not so rigid that a caste cannot rise in the social scale', caste does not work out this way in practice, certainly for the individual. Even the education, wealth and influence of the Shaha trading community of Sylhet win them but little real regard, though their eligibility in the marriage market seems to have given them the right to purchase their brides from the higher castes. This right in view however of the pratiloma caste distinction which lowers the offspring of the Sudra male and the Brahmini female to the outcast status of Chandala, may entail only economic convenience. The pratiloma caste distinction appears to be a sanction imposed to maintain the prestige of the Brahmin on which, according to N. K. Dutt, the whole caste system turns. It is designed to protect the Brahmin prestige from pollution, and freedom from pollution, as is emphasized in the chapter on caste strictures, is the very essence of the caste system. In this connexion it is most interesting to observe that certain very low castes can be polluted by Brahmins (pp. 162–3).

The jealousy of the Brahmin for the Kshatriya is hardly sufficiently stressed; the old literature is full of it. In the period of the Rig-Veda the Brahmin was the family priest and did not rank as high as the warrior. His importance as a professional ritualist in a system derived, as Prof. Hutton believes, from a consciousness of soul-stuff, mana, magic and taboo, increased rapidly as more and more of the original inhabitants, who had these beliefs, were included in the Hindu fold. It is increasingly more certain that Brahminism and Brahmins were pre-Vedic and that they emerged to their full importance after the period of the Rig-Veda when pre-Aryan influences became stronger. It is significant that the early caste Hindus from their stronghold of Madhyadesa looked on the Aryans of the Saptasindhu, the old Rig-Vedic region, as 'Nichiyas and Apachyas, low-born, ill-mannered Westerners' (Aitareya Brahmana, VIII, 14).

The ideas of soul-stuff, mana, magic and taboo played, in the opinion of Prof. Hutton, a leading part in the origin of caste: he says—'It is not suggested that the caste system developed from ideas of Soul-stuff, mana, magic and taboo alone; only that without these ideas it could not have developed'. Enough perhaps is not made of the doctrine of punya (merit) and pap (sin) as enlarged upon by Abbott in his *Keys of Power*, though J. Wilson's *Indian Caste* is quoted in this connection where he says of caste: 'It unfolds the ways of committing what it calls sins, accumulating sin and putting away sin, of acquiring merit, dispensing merit and losing merit'.

An origin in ritual for the caste system was put forward by Hocart in his book *Les Castes*, and it can easily be seen that belief in a punyavant who, to quote Abbott, by his store of merit can accomplish anything, the mere sight of whom uplifts and who can bring salvation to the meanest person, implies both ritual to acquire and renew this merit and taboo to safeguard it; such persons, filled with punya or mana, being of considerable value to the community. It is likely therefore that both Hutton and Hocart are right in regarding ritual, taboo and belief in mana as lying at the roots of the caste system.

Until relatively recently Hinduism was bounded by the Rig-Veda which in its earliest hymns contained little that can be associated with Brahminical Hinduism. Prof. Hutton gives due weight to the great influence of what now must be recognized as pre-Vedic Hinduism. He also introduces the extremely important factor of probable

pre-Vedic Aryans, to which can be added pre-Aryan Iranians. At the same time it is unlikely, as the author points out, that the roots of the caste system lay in any of these peoples. It is essentially Indian, and it is to the Indus and possibly the Ganges that we have to look for the proto-Brahmins and the rise of the Hindu religion and the caste system. In this connexion terracottas found at Buxar are cited as suggesting an extension of the Indus cultures to the Ganges; actually these terracottas are Sunga and the location of their find spot needs to be received with considerable reserve.

As regards the future we are not told very much. The possible results of the almost inevitable clash with communism is not touched on and the ending of British rule in India, not yet a *fait accompli* when this book was written, which should not affect caste but probably will, is not considered. A study of Prof. Hutton's book will not only give one a great deal of information about caste but will correct a number of wrong impressions, for he shows that in spite of such regrettable features as untouchables—and even unseeables—there is much in caste that makes for social and racial adjustment in a huge area with a vast population in every stage of development from the neolithic upwards.

D. H. GORDON.

SCOTLAND BEFORE THE SCOTS. *By* V. GORDON CHILDE. *Methuen*, 1946. *Octavo pp.* 96, 12 *appendices*, 16 *plates*. 12*s* 6*d*.

This work appeared in embryonic form in 1935 as the final chapter of *The Prehistory of Scotland*: it was expanded under the aegis of the Rhind Lectureship in 1944 as *The Development of Tribal Society in pre-Roman Times* and it attained maturity under its own name two years later. The author endeavours in a novel way to present a slice of Scottish social life by applying to prehistory the principles of Marxism as practised by Soviet scholars. He claims that the narratives which these writers have produced seem more historical than a mere succession of invasions, while they are just as objective, being solidly based on observed data.

From the archaeological evidence the writer distinguishes six stages, from the earliest definable groups of immigrants who arrived after the glaciers had receded, to the Iron Age when the sixth stage is reached and history emerges with the arrival of the Roman Legions under Agricola in A.D. 80. From a state of primitive communism society had become divided into classes, still illiterate and barbarian, one of which—a small group of war-chiefs and charioteers—having acquired land by force spent its resources on armaments and objects of parade rather than on reproductive works.

The author's time reckoning is somewhat confusing and, although carefully stated, it is not easy to cope with a chronology divided up simultaneously into stages not representing equal periods of time or synchronous as measured against an absolute time scale. And, when he inverts their chronological and stadial order by describing the Neolithic settlement at Skara Brae before the Megalithic society which preceded it, in order to emphasize a primitive communism in its Marxian sense—where flocks and herds are held in common, but personal possessions in the form of gear, clothing, and ornament were not precluded as private property—confusion is only deepened. The collective tombs of the Megalithic people are regarded as symbolic of a social unit, organized on a kinship basis with the means of production commonly owned. The chambered cairn was the communal burying place of a clan, and, ergo, the symbol of a clan society, and, therefore, communistic.

The invasion of the Beaker-folk stimulated the historical development and with them were released new productive forces. The increased output of the metal industry of the Bronze Age was diverted to the use of warriors. The most talented craftsmen in

bronze found patrons in the courts of La Tène war-lords. The thers had to sell their meaner skill to the rustics of Scotland and thus they may have been fitted into the kinship system as slaves of the local clan chief. Thus, it is claimed, the exploitation of labour may have been introduced.

The subsequent brochs, and even the Gallic forts, are memorials of an acquisition of Scottish soil by invaders from overseas and it is argued that if land can be acquired by the same respectable method of collective robbery as acquired cattle and commodity wealth, land itself may have come to be regarded as a commodity and a possession which could be owned, even privately, and thus the last vestige of primitive communism would have vanished. One cannot escape the feeling that the author is on the defensive. ' It cannot ', for example, ' be un-Marxian to assert that the first cultivated plants and domestic animals were brought to Scotland—not by the wind and waves—but by actual human cultivators and herdsmen who came and settled on our soil '. The whole thesis would have been immeasurably strengthened by a less insistent enunciation of political doctrine.

The evidence which Prof. Childe has so carefully collated would have carried even more conviction if his statistical data had been more firmly grounded. The Scottish chambered cairns number some 360 of which only 66 have been systematically excavated and of these only 35 have yielded significant relics. Again, in only some 50 graves (out of some 665) did any weapon or ornament accompany interments in cinerary urns, while the deductions from the domestic record are, in the main, derived from a mere half dozen of native sites. The statistician might well be non-plussed by the conclusions drawn from data so fragmentary.

The author has not been particularly happy with Scottish place-names and one is kept wondering where he picked up his spelling of Shewalton, Dunecht, Baillieston and others.

A few of his assertions might be usefully qualified. ' No flint dagger has been found in any Scottish grave '. Evans mentions one, $6\frac{3}{4}$ inches long and $1\frac{1}{2}$ inches wide, found in a cairn at Guthrie, Forfarshire, while Professor Daniel Wilson records another, found in a cairn at Craigengelt, near Stirling. Again, to designate the Scottish earth-houses—the long, low, narrow, subterranean galleries—as funk-holes, comparable to our air-raid shelters, into which women and children could retreat in safety during a cattle raid when the men folk were away, appears to be straining unduly the slight evidence available. The locus of the earth-houses, like that of the brochs, is predominantly in the far North ; very few are found in Southern Scotland. Yet raiding, either for domestic or warlike purposes, could hardly have been so geographically localized as the distribution of the earth-houses suggests.

But these trifles do not seriously detract from a very skilful piece of work. In a masterly manner Prof. Childe has recreated the dry bones of Scottish archaeology and has given, with the assistance of excellent photographs and drawings, a vivid and imaginative reconstruction of early social and domestic life in Scotland. While he has written with a red pencil and viewed his landscape through deep-rose coloured spectacles, he has compiled a useful compendium which will be of considerable value in interpreting the Scottish Prehistoric background and in assessing its place in the general European framework.

J. M. Davidson.